TOMPKINS COUNTY—WALKABILITY ASSESSMENT METHODOLOGY AND CASE STUDIES

Case Studies:

- *Northeast Ithaca*
- *The Village of Trumansburg*

Project Team:

Tompkins County
DEPARTMENT OF PLANNING

Stantec

Northeast Greenways

May 25, 2007

Acknowledgements

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- The Trumansburg Walkability Steering Committee provided early insight and background of the needs of the entire community. These people really helped set a wonderful basis to guide the process, and many of the group walked the project area on a very warm summer day.
  - Paula Horrigan, Trumansburg Resident
  - Ellen Haith, Trumansburg Resident
  - Fernando de Aragon, ITCTC Executive Director
  - Barbara Page, Trumansburg Resident
  - Fran McGuire, Trumansburg Resident
  - David Filiberto, Trumansburg Village Trustee

- Similarly, the Northeast Ithaca Walkability Steering Committee provided very specific concerns to shape the discussion of walkability needs of this community. These individuals also helped set a terrific basis to guide the walkability process and many in this group walked the project area during a passing rainstorm.
  - Nicole Tedesco, Town of Ithaca Transportation Planner
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  - Roger Segelken, Area Resident
  - Peter Stein, Ithaca Town Board and Area Resident
  - Fernando de Aragon, ITCTC Executive Director
  - Jonathan Kanter, Town of Ithaca Planning Director

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- The members of the public who attended the workshops and assisted in the field data collection for both the Northeast Ithaca and Village of Trumansburg study areas. We appreciated the good discussion during the workshops and the enthusiastic response at the workshop to perform the field survey.

Executive Summary

The Tompkins County Planning Department received federal Transportation, Community and Systems Preservation Program (TCSP) grant funding to undertake pilot programs to enhance walkability in two communities in Tompkins County. The project consisted of developing tools to identify and quantify both the overarching and location-specific issues that could be addressed to improve a community's walkability.

The intent of the project was to develop a methodology that could be used to help other interested communities evaluate and improve their walking conditions by outlining a method, or methods, for collecting information on existing walking conditions and for developing recommendations and implementation strategies for improving walkability.

The two communities selected for this project are the Village of Trumansburg and Northeast Ithaca, which consists of parts of both the Town of Ithaca and the Village of Cayuga Heights. Both communities are located within Tompkins County, New York. The study areas are shown on Maps 1 and 2 in Sections 3.1 and 3.2, respectively.

Why Walk?

There are many health benefits to walking as a physical activity. Studies have shown that walking helps prevent obesity, diabetes, high blood pressure, and colon cancer. The public health profession has begun to advocate for the creation of walkable neighborhoods as one of the most effective ways to encourage active lifestyles.

Recent studies have found that people with access to sidewalks are more likely to walk and meet the Surgeon General's recommendations for physical activity. To realize these benefits, a community needs to be a walkable community.

Walkability is more than just having the "right-of-way" to walk. Safety, convenience, efficiency, comfort and a welcoming atmosphere influence pedestrian accessibility on a designated route.

Walkable communities generally exhibit some of the following characteristics:

- Compact, lively town center
- Low speed streets without a concentration of vehicular traffic
- Connected streets, trails and transit stops
- Neighborhood schools, parks and convenience/grocery stores
- Public places and spaces with inviting features such as benches, restrooms, shade, art, fountains and appealing buildings
- Celebrated public life such as festivals, parades and markets
- The presence of many people of all ages and abilities walking throughout the day
- Visually interesting and well-maintained streets and homes

TOMPKINS COUNTY—WALKABILITY ASSESSMENT METHODOLOGY AND CASE STUDIES

Executive Summary

May 25, 2007

Methodology

Assessing the walkability of a community is a subjective process; what may be considered unsafe or unsightly to one may appear quaint and interesting to another. In order to better understand the perceptions and specific walkability concerns of the communities, the study took the following steps:

1. Reviewed local plans and proposals impacting walkability in the communities.
2. Studied examples of successful walkability initiatives and walkable communities in other parts of the country.
3. Early in the project steering committees were established that were made up of residents and local officials. The committees provided input on key walkability issues and effective public outreach efforts frequently as the project progressed.
4. The project team and steering committee members walked the communities to identify areas of concern for walkability, as well as areas that are currently well served by pedestrian infrastructure.
5. A survey tool was developed to evaluate the walkability of an area. The survey was designed to be easy to use by individuals, community associations, and groups of residents. The survey was also designed for use along specific routes to identify barriers to pedestrian use, and opportunities to enhance the pedestrian experience. The survey was modified after field tests and input from the steering committees, and modified again after the community surveys were completed. As part of this step, available GIS data from Tompkins County, Town of Ithaca and New York State was used to evaluate the pedestrian environment in the study areas and a methodology for recording and analyzing the results of the survey tool was developed.
6. Public workshops were held in the communities to educate residents on walkability issues and train them on how to complete the survey.
7. The results of the surveys were integrated into a GIS coverage to display the results
8. Project goals were identified and prioritized to achieve enhanced walkability for this project.
9. Recommendations of projects to undertake to enhance walkability were developed and prioritized for each of the study areas.
10. The survey tool was revised and improved to address issues identified so that future communities may benefit, and the survey results were applied to the revised survey tool and incorporated into a ranking matrix to identify the high, medium and low priority sidewalks for the study areas. The priority ranking was used as additional input for the needs assessment and to be used as a tool to determine priority projects to be implemented.

TOMPKINS COUNTY—WALKABILITY ASSESSMENT METHODOLOGY AND CASE STUDIES

Executive Summary

May 25, 2007

Summary of Needs

There were some needs and concerns identified that were similar in both study areas and are representative of some of the barriers to walkability in a community. These include:

- Existing pedestrian facilities need improving, for instance the sidewalk or edge of street is not in good condition for walking surface.
- Existing initiatives need advancement, for instance projects that include road and sidewalk improvements along Hanshaw Road in Northeast Ithaca and Main Street in Trumansburg.
- There is not an adequate walking connection or access to schools.
- Crosswalks are not provided, or the roadway throat is too wide to provide safe crossing for pedestrians.
- There is not an adequate walking connection or access to shopping centers, parks, neighborhoods, and other destinations.
- Vehicle speeds are excessive on many of the streets, especially when pedestrians need to walk on the edge of the street.
- Better areas are needed for recreational walking loops and integration with recreational regional trails.

TOMPKINS COUNTY—WALKABILITY ASSESSMENT METHODOLOGY AND CASE STUDIES

Executive Summary

May 25, 2007

Prioritized Goals for Walkability Improvements

The goals for walkability improvements for this project were determined after review of the needs in the study areas. The goals are prioritized to address high needs, ease of implementation, and impact to the entire community. The goals used to prioritize recommendations to improve walkability in the study areas are:

1. **Build on current pedestrian initiatives and plans by municipalities**

   Each community is already involved in ambitious and active pedestrian studies and initiatives. By adding to the momentum of a process already underway, there is a greater chance of accomplishing improvements to the community's walkability.

2. **Provide safer, more accessible school routes for children.**

   The safety of school age children is a paramount concern within every community. School destinations are prominent within each of the study areas and are a critical component of the walkability concerns expressed by local residents.

3. **Provide safer, more accessible crossings at intersections.**

   Safety and clarity of the pedestrian crossing at intersecting streets is necessary to clearly define the pedestrian walkway and provide proper visibility for the driver. This includes decreasing the turning radii, where practical, to reduce the length of the crosswalk and lower the speed of a turning vehicle.

4. **Provide safer, more accessible walking routes to desired destinations.**

   Fundamental to a walkable community is the ability to walk to where you want to go in a safe and enjoyable environment. There are many opportunities to walk within each community for shopping, going to a local church or synagogue, going to work, going to the library, and other typical destinations. Providing good connections to destinations promotes walking trips and reduces vehicular trips.

5. **Provide recreational walking loops through the community.**

   Many people enjoy walking for good health and relaxation. This activity also promotes interaction within the neighborhood creating a more lively and vibrant community.

6. **Reduce conflict between vehicular traffic and walkers.**

   Increasing the distance between vehicle traffic and pedestrians using the same street corridor makes the walking experience more safe and inviting for pedestrians and increases the use of pedestrian facilities.

After applying the project goals to the walkability needs in each community, the top five (5) recommended actions, in order of priority, in each community are:

Top 5 Priority Projects for Improving Walkability in the Northeast Area

1. **Complete, extend and upgrade sidewalks to Northeast Elementary School, including new and upgraded sidewalks along Winthrop Drive between Triphammer Road and Warren Road and new sidewalks at Christopher Lane, Brandywine Drive and Blackstone Avenue.**
2. **Improve safety and comfort along Northeast Ithaca Recreation Trail and create better neighborhood linkages to the trail to improve student access to schools and to enhance overall walking infrastructure in the study area.**
3. **Construct sidewalks, provide traffic calming and explore the creation of short walkway connectors in the vicinity of Muriel and Salem east of Warren Road in the study area including Rose Hill Road and connections to Salem Drive and Winston Drive to provide a continuous loop.**
4. **Construct the Hanshaw Road sidewalk and improve sidewalks, crossings and intersections at Community Corners to ensure that this important commercial and civic destination is accessible and safe for pedestrians. Also, high visibility crossings at Blackstone and Warren should be included.**
5. **Develop a community greenways task force or advisory committee that can look at possible new neighborhood connectors, longer greenways and trails to link neighborhoods and destinations in the study area. Enforce the trail connections proposed for the Briarwood II development.**

Top 5 Priority Projects for Improving Walkability in Trumansburg

1. **Develop a Safe Routes to School Program and improve sidewalks on Whig Street, Lake Street and King Street.**
2. **Extend Main Street sidewalk from Washington Street to Community Park off Hector Street and then to the northwest to Seneca Street.**
3. **Improve Elm Street sidewalk, parking and streetscape on both sides of the street between Main Street and Town hall and Village hall parking.**
4. **Adopt and enforce policies regarding sidewalk upgrades and tree lawn maintenance to provide a consistent sidewalk area throughout the Village. Upgrades include resetting of slate sidewalk, integrating pieces of slate in concrete sidewalk or new concrete sidewalk in historic Village neighborhoods where slate sidewalks are, or were previously, in existence.**
5. **Develop a Trumansburg Greenways Committee to develop a greenway/trail master plan and implementation strategy.**

TOMPKINS COUNTY—WALKABILITY ASSESSMENT METHODOLOGY AND CASE STUDIES

Table of Contents

May 25, 2007

Table of Contents

TOMPKINS COUNTY—WALKABILITY ASSESSMENT METHODOLOGY AND CASE STUDIES

Table of Contents

May 25, 2007

TOMPKINS COUNTY—WALKABILITY ASSESSMENT METHODOLOGY AND CASE STUDIES

Introduction

May 25, 2007

1.0 Introduction

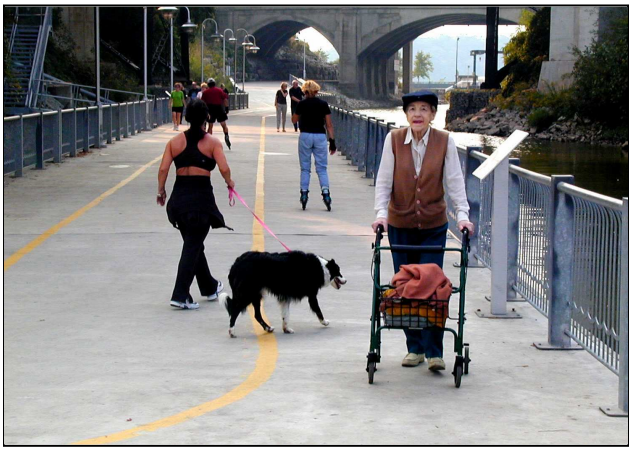
1.1 PURPOSE OF THE STUDY

The Tompkins County Planning Department received federal Transportation, Community and Systems Preservation Program (TCSP) grant funding to undertake pilot programs to enhance walkability in two communities, as case studies, in Tompkins County. The project consisted of developing tools to identify and quantify both the overarching and location-specific issues that could be addressed to improve a community's walkability. The intent of the project was to develop a methodology that could be used to help other interested communities evaluate and improve their walking conditions by outlining a method, or methods, for collecting information on existing walking conditions and for developing recommendations and implementation strategies for improving walkability.

1.2 THE CASE STUDY AREAS

The two communities this study will focus on for the case studies are Northeast Ithaca and the Village of Trumansburg, which are both located within Tompkins County, New York.

1.3 BENEFITS OF WALKABLE COMMUNITIES



Walking as a physical activity helps prevent obesity, diabetes, high blood pressure, and colon cancer. The public health profession has begun to advocate for the creation of walkable neighborhoods as one of the most effective ways to encourage active lifestyles. Recent studies have found that people with access to sidewalks are more likely to walk and meet the Surgeon General's recommendations for physical activity.[1] Residents in highly walkable neighborhoods engage in about 70 more minutes per week of moderate and vigorous physical activity than residents in low walkability neighborhoods[2] and 43% of people with safe places to walk within ten minutes of home meet recommended activity levels,

1 Eyler, A.A., Brownson, R.C., Bacak, S.J., & Housemann, R.A. (2003) "The epidemiology of walking for physical activity in the United States". Medicine & Science in Sports & Exercise, 35 (9), 1529-1536.
2 Saelens, B., Sallis, J.F., Black, J., et al. (2003). "Neighborhood-based differences in physical activity: An environment scale evaluation". American Journal of Public Health, 93, 1552-1558.

compared to only 27% of those without safe places to walk.[3] Residents are 65% more likely to walk in a neighborhood with sidewalks.[4]

Walking is the most basic form of transportation. Based on the 2001 National Household Travel Survey (2001 NHTS), approximately 8% of all U.S. households do not own a car, and 12% of Americans 15 years of age or older do not have a drivers license. People who do not drive include:

- Children—21% of the population is under 15 years of age (2000 Census)
- Older Americans—12% of the population is over 65 years of age (2000 Census)
- People with mobility, vision or cognitive impairments that cannot drive—20% of Americans have an impairment that limits their daily activities (2000 Census)
- Those that cannot afford a car—the cost of owning a car is approximately $500/month (American Automobile Association)

A 2002 national survey on attitudes toward walking[5] found that the American public wants to walk more places more often, and is willing to invest in making it possible. Poll results show that if given a choice between walking more and driving more, 55% of adults choose walking more. The poll shows overwhelming support for policies to make the walking environment less dangerous for people of all ages, and especially children. A majority (68%) favor putting more federal dollars toward improving walkability, even within a constrained budget.

Streets without safe places to walk put people at risk. Paved shoulders reduce pedestrian crashes up to 80%, and motor vehicle crashes up to 50%. Residential areas with no sidewalks had 23% of the pedestrian crashes but only 3% of the pedestrian traffic.[6] Local streets without sidewalks had 2.6 times more pedestrian collisions than expected (compared to the overall sample of streets) on the basis of exposure. Streets with sidewalks on one side only had 1.2 times more pedestrian collisions than expected. The Institute of Transportation Engineers recommends sidewalks for both sides of residential streets and other streets and highways where pedestrian activity is expected.[7]

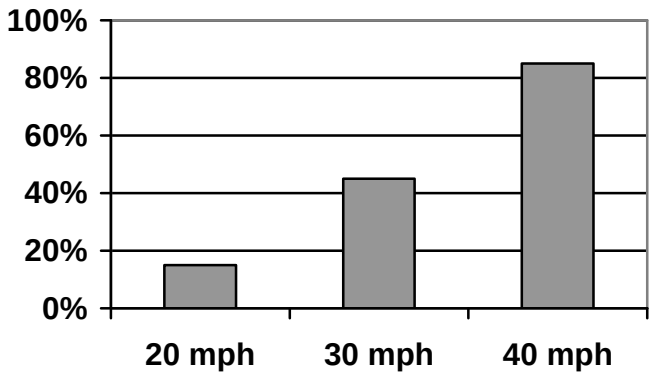
In addition to sidewalks is the need to consider pedestrian crossings of streets. The probability of a pedestrian fatality based on the speed of the motor vehicle involved in the collision is high (45%) at 30 mph and rises dramatically to 85% at only 40 mph as shown in Figure 1.1.

3 Powell, K.E., Martin, L., Chowdhury, P.P. (2003) “Places to walk: Convenience and regular physical activity”. American Journal of Public Health, 93, 1519-1521.
4 Giles-Corti, B., and Donovan, R.J. (2002). “The relative influence of individual, social, and physical environment determinants of physical activity”. Social Science & Medicine, 54 1793-1812.
5 Belden Russonello & Stewart. “Americans’ Attitudes Toward Walking and Creating Better Walking Communities”. Surface Transportation Policy Project, April 2003.
6 Knoblauch, R.L., B.H. Tustin, S.A. Smith and M.T. Pietrucha. “Investigation of Exposure Based Pedestrian Areas: Crosswalks, Sidewalks, Local Streets and Major Arterials”. Report No. FHWA RD-88-038, U.S. Department of Transportation, Federal Highway Administration, September 1988.
7 Traffic Engineering Council. Design and Safety of Pedestrian Facilities: A Recommended Practice of the Institute of Transportation Engineers. Institute of Transportation Engineers, March 1998.

But there is safety in numbers, i.e., a motorist is less likely to collide with a person walking if more people walk.[8] This pattern is consistent across communities of varying size, from specific intersections to cities and countries, and across time periods. Policies and practices that increase the numbers of people walking and bicycling appear to be an effective route to improving the safety of people walking and cycling.

Figure 1.1

Pedestrian's Chances of Death if Hit by a Motor Vehicle[9]



The benefits of walking include:

- Environmental—Walking does not contribute to air pollution, it reduces emissions and our dependency on fossil fuels that contribute to global warming, benefiting the health of our ecosystems.
- Economic—Walking eases traffic congestion and takes us beyond the economic gridlock of car dependency; housing values in walkable communities are higher; it fits with the new economy of accessibility, networking and collaboration; commuting costs are reduced; high-density and non-car-dependent land-use result in lower business costs and taxes; a strong economy is linked to residents' and visitors' community pride and activity.
- Social—Pedestrian-friendly streets contribute to a "sense of place" by improving the quality of life for individuals, increasing social interaction, contributing to community liveliness, and creating more social equity

The incremental cost within transportation projects of providing pedestrian infrastructure is outweighed by the benefits.

Current national initiatives that focus on walkable communities include:

8 Jacobson, P.L. (2003) "Safety in numbers: more walkers and bicyclists, safer walking and bicycling". Injury Prevention, 9, 205-209

9 Department of Transport (United Kingdom). "Killing Speed and Saving Lives". As reported in Oregon Department of Transportation, *Oregon Bicycle and Pedestrian Plan*, 1995.

- Active Living by Design—A national program of the Robert Wood Johnson Foundation establishing and evaluating innovative approaches to increase physical activity through community design, public policies and communications strategies. (http://www.activelivingbydesign.org)
- Safe Routes to School—The Federal Safe Routes to School (SRTS) Program is intended to empower communities to make walking and bicycling to school a safe and routine activity. The Program makes funding available for a wide variety of programs and projects, from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle safely to school .(http://safety.fhwa.dot.gov/saferoutes)
- Complete Streets—The National Complete Streets Coalition is working together in support of streets that are designed and operated to enable safe access for all users, i.e., pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street. (http://www.completestreets.org)
- Traffic Justice Initiative—A campaign by the National Center for Bicycling and Walking to redefine our societal perspective on motor vehicle crashes, and substantially reduce their occurrence. (http://www.bikewalk.org/tji.php)

Walkability is more than just having the "right-of-way" to walk. Accessibility of a route for pedestrians is influenced by safety, convenience, efficiency, comfort and welcome of a place. Walkable communities generally exhibit some of the following characteristics:

- Compact, lively town center
- Low speed streets with traffic distributed among them
- Connected streets, trails and transit stops
- Neighborhood schools, parks and convenience/grocery stores
- Public places and spaces with inviting features such as benches, restrooms, shade, art, fountains and appealing buildings
- Celebrated public life such as festivals, parades and markets
- The presence of many people of all ages and abilities walking throughout the day
- Affordable, inspiring and well-maintained streets and homes

Walking is the most basic form of transportation, as well as being one of the least costly and easiest forms of exercise available. People walk for enjoyment, health, purpose and convenience. They walk to the park, to schools, to stores and to work. FHWA's *National Bicycle and Walking Study* (1994) reported on the purpose of daily walking trips:

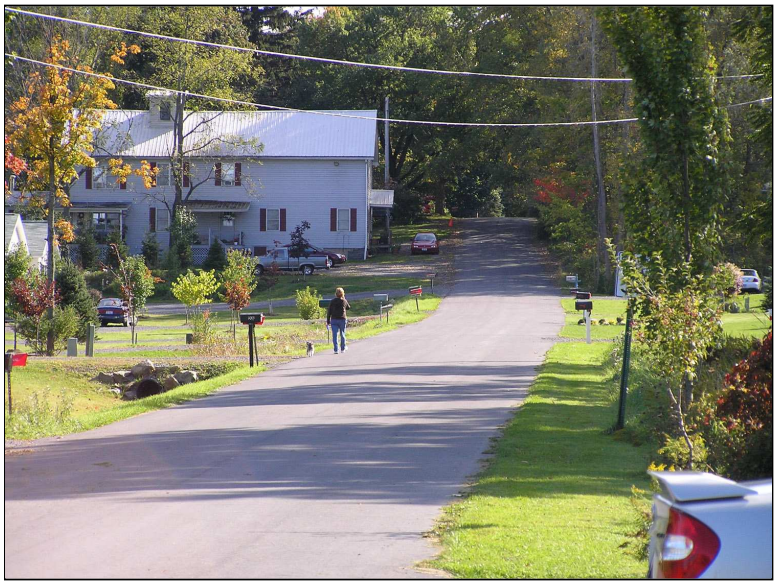
- 34% were social or recreational trips
- 33% were personal or family-related trips
- 20% were civic or educational-related trips
- 12% were trips to earn a living
- 1% were "other"

Although people will walk regardless of the trip length or distance, most walking trips are less

than one mile in length, some may be 1.5 miles long, but few are longer than 2.5 miles. School trips are generally one mile in length; otherwise children are bused to school. An assessment of a specific walking route between origins and destinations generally focus on those that are less than two miles apart, and one mile for schools. However, assessment is warranted for those destinations that would be less than two miles from the origin if a critical link or connection, such as a bridge or trail, were provided.

In assessing the walkability of a specific route, one must consider:

- The walking infrastructure itself, that is the walkway, sidewalk, trail, or lack there of, and the condition of that walkway. Roadway crossings can, in particular, make a specific route difficult for walking, so some attention should be paid to important roadway crossings along the route, such as the type of traffic control that provides pedestrian right-of-way, traffic speeds and volume, visibility, etc.
- The environment through which the route travels, including the built and natural environment, amenities for pedestrians, and those elements that contribute to personal security.



Residential Street in the Village of Trumansburg, Without Sidewalks or Shoulder

2.0 Methodology

2.1 DETERMINING THE PROJECT NEEDS

Assessing walkability can be a very subjective process. With so many opinions and perceptions on what streets and areas of a community are walkable, how does a group decide where to focus its energy or put a plan forward to improve the walkability? There were several avenues of getting input and feedback from the community and local government as the project progressed. Utilizing these avenues in a step-wise fashion resulted in receiving enough information and detail to provide a good picture of the communities' walking concerns and needs. These steps set the groundwork for the walkability assessment.

Recently Improved Driveway and Sidewalk Along Arterial Street

2.2 LOCAL PLANS AND INITIATIVES

One of the key steps was to review current plans and initiatives of the organizations and governmental agencies involved in planning issues that consider pedestrian activity within each study area community. Typically, these plans and initiatives already had a certain amount of enthusiasm and momentum behind them, and this study sought to build on that momentum.

2.3 SUCCESSFUL EXAMPLES

Another important step was to review documented walkability successes from other communities across the country and draw from the expertise and experience of other agencies and planning groups involved in implementing walkability plans and conducting walkability studies.

Several existing walkability surveys were reviewed as part of the development of the *Walkability Assessment Survey* used in this study. Copies of the existing surveys that were reviewed are provided in the Appendices Section 7.1.

Widely available is the "Walkability Checklist" published by the National Highway Traffic Safety Administration (NHTSA) of the U.S. Department of Transportation. It asks respondents to rate from "awful" to "excellent" various aspects of the pedestrian environment including room to walk, ease of crossing streets, driver behavior, safety rules, and pleasantness of the walk. The final

aggregate "score" provides feedback to the respondent on whether that have a "great neighborhood for walking", a place that "needs some work", or a "disaster area". The checklist also includes a discussion of what could be done to make a community more walkable. Although this checklist is simple to fill out and provides a subjective yet quantified "rating" of a neighborhood, the "checklist" does not allow one to gather information specific to a walking route.

The NHTSA Walkability Checklist has been modified by other agencies and organizations to expand on specific aspects of the survey, such as:

- Region of York Pedestrian & Cycling Master Plan "Walkability Checklist" added lists for various sidewalk, environmental, trail, and improvement options for respondents to check off. However, the survey was only specific in terms of naming a route and destination
- California Walk to School "Walkability Checklist" added some items specific to schools such as the information about bus and car passenger drop-off locations. Specific routes could not be identified
- Mark Fenton's "Neighborhood Walkability Checklist" is intended to be filled out for a "typical" walk with common problems listed. Again, specific routes could not be identified

The Kansas City Walkability Plan included a "Neighborhood Walking Survey". The survey is intended to help respondents determine for themselves what they need and want for walking amenities. Instructions are provided for the survey respondents to markup their own maps to show the information requested in a specific manner. The first map prompts survey respondents to identify walking trip origins and destinations. The second map prompts respondents to inventory walking conditions, such as the location of sidewalks, street crossings, barriers, physical interests and amenities along a specific route. It also prompts respondents to identify areas that are thought to be unsafe to walk. A checklist is provided that prompts respondents to consider the condition of their walk from one location to another, rating the various aspects from "excellent" (1) to "awful" (6), including: room to walk, ease of crossing the street, driver behavior, safety rules, and pleasantness of the walk. The final step in filling out the survey requires the respondent to prepare a summary map and "walking wishes", which are defined as the five most important changes they would like to see in their neighborhood.

The not-for-profit organization, Go for Green, has created "Walk and Roll: Making it Work—A Toolbox," which includes a survey intended for employees to assess the ability to use "active transportation" for their trip to work. "Active Transportation" is active modes to get to work including walking, jogging, in-line skating, bicycling, and similar active modes. One part of the survey includes an assessment form to be used to identify "active transportation" barriers and opportunities. The survey form guides the respondent to review routes from residence to work and assess the viability of using certain routes to encourage "active transportation" use.

The Region of Waterloo, Ontario conducted a Pedestrian Accessibility Audit around transit stations. A long list of "audit items" was provided on a survey form and the surveyor indicated if the condition was present. The audit items were divided into two columns, with one generally

considered to be positive with respect to walking conditions and the other generally considered to be negative with respect with walking. A quick glance at which column has more checks at the end of the audit gives an indication of the walkability of the area audited. A copy of the audit is provided in the appendix. Feedback from staff at the Region of Waterloo indicated that this more detailed checklist, which was intended to be a thorough inventory, was generally too detailed for the members of the public to be able to easily complete. Although the respondents may have been able to complete most of the observations, the exact locations where the observations where made and the geographic completeness of the surveys was of concern. The Region of Waterloo repeated the audit with assistance from local university students. However, the survey certainly went beyond the needs of a general walkability checklist in terms of details of the pedestrian infrastructure.

2.4 STEERING COMMITTEE

The next step was forming steering committees in each community, consisting of active walkers and residents of the communities, as well as transportation officials, municipal board members and community planners. Obtaining input from the committees early in the project timeline was invaluable. Steering committee members volunteered their time to provide a general overview and direction for initial perceptions and concerns of walkability issues in their respective communities. Using aerial photographs and the County's GIS mapping, the committee pinpointed areas of concern and provided a sense of the communities' personality and uniqueness

2.5 SITE VISITS

Washed Out Shoulder Along Collector Road In Northeast Ithaca

Walking the community with the steering committee was the next step to understand the issues and identify specific areas of concern. This step provided a first-hand view of the layout of the community and offered a sense of how the street network operates and how people negotiate along the thoroughfares. This allowed the steering committee and project managers to see and feel the difficulties of walking in areas that are not apparent from a map. For example, participants felt uneasy walking on gravel shoulders that were not easily traversable because the surface had been washed-out by rain or the cross-slope was too steep to walk along comfortably, and people felt the sense of danger when a car zoomed past when walking along a narrow street.

2.6 WALKABILITY ASSESSMENT SURVEY

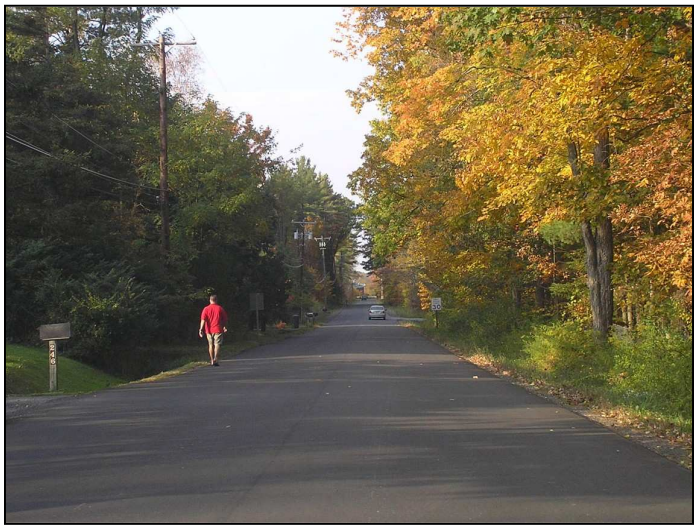
The next step was to develop and institute a *Walkability Assessment Survey* tool specifically for this project to collect specific route data for the entire community and provide a guide to evaluate the collected information in a subjective, systematic fashion. This *Walkability Assessment Survey* was intended to be easy to use by individuals, community associations, and groups of residents. It was to be designed for use along a specific route to identify barriers to pedestrian use and opportunities to enhance the pedestrian experience.

The *Walkability Assessment Survey*, developed for the assessment of walking conditions in Trumansburg and Northeast Ithaca, combined the idea of checklists to prompt respondents to consider specific elements of the walking environment with detailed route maps, and additional space to add comments. The survey was divided into four sections:

- Where do you want to walk?
- How complete is the walkway system along this route?
- How suitable is the walking environment?
- How well do the important street crossings work?

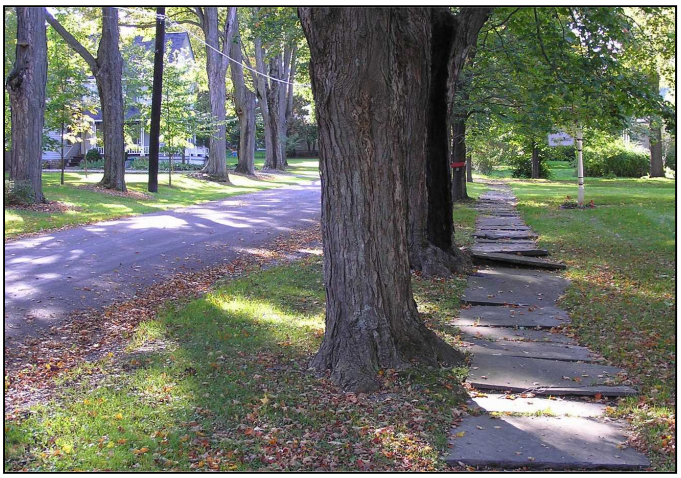
In order to facilitate GIS recording of the results of the survey, potential walking routes in each community were identified on maps including "sections" (from crossing to crossing) and "crossings". This was intended to guide the respondents in a systematic method to inventory the walking route. The instructions to the surveyors were that they were to mark on the maps which route they were surveying, and to complete separate survey forms, as many as would be required, for each section of the route and for each crossing.

The intent of the survey was to identify "problems" and the respondent's suggested priorities for enhancements. Thus, the "checklist" for the walkway system, walking environment and street crossings focused on elements that make walking difficult or unpleasant.



Deep Swales Along Residential Street

One element of the survey that was specific to these communities is the type of "walkway" identified. Typically, many urban or semi-urban communities provide sidewalks as the basic walking infrastructure. For example, in the Northeast Ithaca study area (See photo on right and Section 3.1), the type of walkways identified included walking in the street when there were no sidewalks at all along the narrow, semi-rural roads. These roads typically have roadside ditches or swales and no curbs and gutters.



Uneven Sidewalk Along Residential Street

Another example unique to the Trumansburg study area (See photo on left and Section 3.2) is the remnants of slate sidewalks along the older streets in the Village. The condition of the slate sidewalks varies considerably within the Village from good condition to varying degrees of disrepair including overgrown, buried, missing, broken, and heaved.

The lack of sidewalks along the rural and suburban roadways and the poor and intermittent condition of the slate sidewalks certainly raises concerns about accessibility for the physically impaired. Many able-bodied adults can either just cope, or even enjoy, walking on the rural roads at least during non-snow conditions. However, people with mobility or visual impairments, youth, young children, and those with children in strollers, would find these conditions difficult to impossible to negotiate. Difficult conditions can also be very unsafe during certain times of the day considering situations where a stroller cannot be used the sidewalk and must be used in the narrow street, which places a stroller in the vehicular travel way. The survey "checklists" were intended to capture the condition of the sidewalks and crosswalks, as well as identify any areas that lack sidewalks and crosswalks.
A copy of the *Walkability Assessment Survey* and route maps are included in the Appendices, Section 7.5.

2.7 PUBLIC WORKSHOPS AND USE OF THE WALKABILITY ASSESSMENT SURVEY

The *Walkability Assessment Survey* was introduced to residents and group leaders at half-day workshops in each community to help them understand and identify the following:

- Why walking is important to a community
- What makes a community walkable
- What destinations within the community should be accessible to pedestrians
- Looking at the metric of a mile-long pedestrian trip, what connections or routes could be made from places a pedestrian trip would start to a trip end
- How to use the *Walkability Assessment Survey* tool

Workshop participants were presented information to be educated, trained, and have experience concerning the many facets of community walkability. The education included a review of nationwide walkability trends and benefits. Statistics were provided supporting the claims of benefits and current state of the practice of walkable neighborhoods. Examples were given to highlight facilities that assist or impede walkability, with particular emphasis on special considerations that should be given when designing walkable areas for people with special needs like the physically and visually impaired. (See Appendices, Section 7.4 for the

presentations). The participants were then trained on filling out the *Walkability Assessment Survey*, including examining the components of the form, the sections of the study area to be assessed, explanations of why the information is necessary, and the process of recording the information.

Finally, the entire workshop group went outside and walked nearby streets using the survey tool to better understand what items to look for and how the survey can be used to record the information. For example, during the fieldwork in Trumansburg, the group assessed the layout of an intersection, noting the wide radius of the street corners, which resulted in a very wide crossing with a paved area that did not provide a well-defined and safe pedestrian area.

The maps and survey forms were distributed at the workshops, as well as posted on the County's website for interested citizens to download for completion and submittal. The deadline for receipt of the surveys was 4 weeks after the workshop trainings, and could be mailed to the County Planning Department or dropped off at the public libraries or municipal offices in the communities.

Despite extensive public outreach efforts, turn-out at the workshops was fairly low, with 17 people attending the workshop in Trumansburg and 12 people attending in Northeast Ithaca. The public outreach included:

- Mailed postcards to every property owner in the study areas
- Sent notices to mayors, town supervisor, county legislators, and local planning staff
- Posted to various local list-serves, including public schools
- Sent fliers home with elementary public school children
- Met with public school administrators about the project
- Made announcements at various community meetings
- Posted fliers in the schools and at local businesses in the community

2.8 INTEGRATION OF SURVEY RESULTS

In general, the concern of lack of basic walking infrastructure such as sidewalks and pedestrian crossings, plus the excessive speed of vehicles adjacent to walkers, dominated the surveys. The results of the surveys were translated to a GIS attribute table and integrated into the ArcGIS platform with the County's existing GIS data. A graphic representation of the survey tool input was prepared as part of a coverage layer for each study area (see "Walkability Needs Survey Results" maps in Appendix 7.7).

Although the intent was to use the results of the survey tool as an input to a GIS-based reporting and analysis (prioritization) process, the survey responses showed a need to improve the survey tool-GIS integration. Therefore, the" Walkability Needs Survey Results" maps were only used as input to help pinpoint respondents' concerns and suggestions, with the survey response data being used as described below.

Based on lessons learned, as identified in Section 5.0, Potential Improvements to the Process, the *Walkability Assessment Survey* tool was revised (see Section 2.11 for more detail). The survey results supplemented with knowledge and experience from the steering committee were then applied to the revised survey tool and incorporated into a ranking matrix (see each study area's "Revised Survey Results Ranking Matrix" found at the end of each case study in Section 3.0) to identify the high, medium and low priority walkways in need of improvement.

Maps, titled "Priority Ranking of Walkway Improvements," which display the results of the "Revised Survey Results Ranking Matrix," may be found at the end of each case study in Section 3.0. The walkways in need of improvement are classified using a numerical rating, with 0-49 being classified as low, 50-69 being classified as medium, and 70+ being classified as high priority. Future walkability studies that use the revised survey tool will more easily be able to incorporate survey results into a database fully populated from the field survey data sheets.

After the "Priority Ranking of Walkway Improvements" maps were developed, they were reviewed, along with information from the needs assessment, onsite evaluations, steering committee knowledge of the study areas, and the professional expertise of the planning, engineering and landscape architects conducting the studies, to develop the "Walkability – Recommended Projects" maps, which may also be found at the end of each case study in Section 3.0..

2.9 PRIORITIZATION OF GOALS

The objective of this study is to investigate and determine ways to improve the walkability of a community by addressing the specific needs of that community. These needs were identified earlier in Section 2, through the process of community input, field observation, current transportation initiatives, and experience from other similar projects. As the combined input from both study areas was reviewed, the overall needs were remarkably similar and could be categorized as follows:

- Existing pedestrian facilities need improving, for instance the sidewalk or edge of street is not in good condition for walking surface.
- Existing initiatives need advancement, for instance projects that include road and sidewalk improvements along Hanshaw Road in Northeast Ithaca and Main Street in Trumansburg.
- There is not an adequate walking connection or access to schools.
- Crosswalks are not provided, or the roadway throat is too wide to provide safe crossing for pedestrians.
- There is not an adequate walking connection or access to shopping centers, parks, neighborhoods, and other destinations.
- Vehicle speeds are excessive on many of the streets, especially when pedestrians need to walk on the edge of the street.
- Better areas are needed for recreational walking loops and integration with recreational regional trails.

The next step in the methodology was for goals to be established to improve the community's walkability by addressing these identified community needs. In order to prioritize the goals,

consideration was given to ease of implementation, degree to which the need was identified based on repeated concerns from many members of the community, and impact to the overall community. Projects and initiatives that are already in place were given a high priority because these typically have a base of support in place to implement a project to address the goal. Safety is always a priority. Student safety is a very high priority for schools and the community served by the school. This includes walking routes and street crossings. Safe routes for other pedestrians would follow in priority. The goals are presented in the order that was used to prioritize the recommended top 5 priority projects.

Prioritized Goals for Walkability Improvements

The goals used to prioritize recommendations to improve walkability in this study are:

1. **Build on current pedestrian initiatives and plans by municipalities**
   Each community is already involved in ambitious and active pedestrian studies and initiatives. By adding to the momentum of a process already underway, there is a greater chance of accomplishing improvements to the community walkability.
2. **Provide safer, more accessible school routes for children.**
   The safety of school age children is a paramount concern within every community. School destinations are prominent within each of the study areas and are a critical component of the walkability concerns expressed by local residents.
3. **Provide safer, more accessible crossings at intersections.**
   Safety and clarity of the pedestrian crossing at intersecting streets is necessary to clearly define the pedestrian walkway and provide proper visibility for the driver. This includes decreasing the turning radii, where practical, to reduce the length of the crosswalk and lower the speed of a turning vehicle.
4. **Provide safer, more accessible walking routes to desired destinations.**
   Fundamental to a walkable community is the ability to walk to where you want to go in a safe and enjoyable environment. There are many opportunities to walk within each community for shopping, going to a local church or synagogue, going to work, going to the library, and other typical destinations. Providing good connections to destinations promotes walking trips and reduces vehicular trips.
5. **Provide recreational walking loops through the community.**
   Many people enjoy walking for good health and relaxation. This activity also promotes interaction within the neighborhood creating a more lively and vibrant community.
6. **Reduce conflict between vehicular traffic and walkers.**
   Increasing the distance between vehicle traffic and pedestrians using the same street corridor makes the walking experience more safe and inviting for pedestrians and increases the use of pedestrian facilities.

2.10 RECOMMENDATIONS OF PROJECTS TO PURSUE

The prioritized goals provide a framework to develop rational and plausible improvements to the infrastructure to meet those goals. In providing recommendations for specific projects to pursue, consideration was given to the necessity of the improvement, ease of implementation, connectivity of the walking network, and perceived competitiveness for possible funding sources.

The necessity of the improvement relates to the perceived magnitude of the problem as related on surveys, and safety issues identified by the project team.

Ease of implementation is a function of constructability of the improvement and the relative simplicity required for municipal regulations to be adopted to guide the scope of the improvement. Municipal regulations should define the roles and responsibilities of the landowner and the municipality, as well as provide guidance for uniform and safe treatment of the walking area and the enforcement of the regulations.

Projects that enhance the connectivity of the network either fill in gaps in an existing system of walkways or connect inner loops to outer loops through a series of radial connections.

The last issue is the funding sources and the ability to fund these types of projects. Many of the walkability improvements are currently being funded by State and Federal grants for small projects, or are being discussed for funding by local municipalities. Additional funding sources are identified and described in Section 4.0, Funding Opportunities.

2.11 REVISIONS TO WALKABILITY ASSESSMENT SURVEY

The *Walkability Assessment Survey* tool was revised to simplify the form, provide a ranking system for prioritizing walking segments and gather specific comments and needs for each roadway segment (see Appendix 7.8). The survey form originally developed for this project attempted to gather as much information as possible for walkway routes but there were many parts to the survey that didn't apply or were not completed by survey respondents. Also, the data obtained was not easily coded into a GIS database to capture the information.

As the goal of this project was to provide an evaluation of the walkability of a community, as well as to provide a replicable method to help a community prioritize walking areas with the greatest needs, it was felt that using a GIS database was important and revising the survey tool was essential. Traditionally, survey tools were designed for the general public to see how their community measures up as a "walkable" community compared to national standards. Walkability surveys were typically used to initiate discussions with the local authorities for changes or improvements.

This study takes this approach one step further by comparing the walkability within the community and ranking the walkway segments to prepare a more detailed plan for improvements. This ranking is a key step in the needs assessment process providing targeted areas of improvement.

The survey tool was modified to make it easier to complete, provide a schematic map to note areas of concern, and provide a ranking system for four different components of a walkable area. These areas are also consistent with the Federal Highway Administration's categories, which is the basis for most of the existing walkability survey tools.

The objective measures that are included in the revised survey are numerically rated, as shown on the survey, and take into account the Federal Highway classification of the road segment (Arterial, Collector, or Local Road/Street); the type of use of the walk corridor (School Route, Destination Route, or Recreation Route and all combinations of these three); and the type of facility (Sidewalk/Trail, Shoulder, or Road). A numerical rating system is assigned to each of these objective measures to indicate the relative importance of each category to the overall transportation network and its safety to pedestrians. The objective measures have a range from 15, as a minimum, to 60 as a maximum..

The remainder of the revised survey requests information that is more subjective in nature. Specific information is checked off for each section, which helps survey respondents to pay close attention to key details in the walking conditions along the route. The subjective measures carry slightly less weight in the Ranking Matrix since they are less quantifiable and more perceptions of the survey respondent. The numerical rating of these subjective items range from 0 to 10, in increments of 2, with 0 being excellent (a great facility) and 10 being awful (a terrible facility). The subjective measures have a range from 0, as a minimum, to 40 as a maximum..

The main sections of the revised survey are:

- Walking Conditions (physical features)
- Interaction with Other Modes of Transportation (cars, trucks, buses, bicycles, etc.)
- Walking Environment (amenities and perceived walking comfort and safety)
- Crossing Issues (composite of the three areas listed above for the road crossings)

3.0 Case Studies

3.1 NORTHEAST ITHACA CASE STUDY

Study Area Description

The Northeast Ithaca study area can be characterized as suburban in nature and is comprised of primarily single-family residences, with a sprinkling of multi-family residential developments located along the northern edge of the study area. The area includes a portion of the Village of Cayuga Heights bordered to the west by Triphammer Road and Hanshaw Road to the south. The remainder of the study area is within the Town of Ithaca with Hanshaw Road to the south and Sapsucker Woods Road to the east. The northern limit is the Town and Village lines.

While there is not a traditional community center in the heart of the study area, there are several activity centers located throughout the community. The center of the study area has an elementary school (Northeast Elementary School), a middle school (Dewitt Middle School), a technology school (BOCES), and a large daycare facility (Ithaca Community Childcare Center) are adjacent to each other along either side of Warren Road.

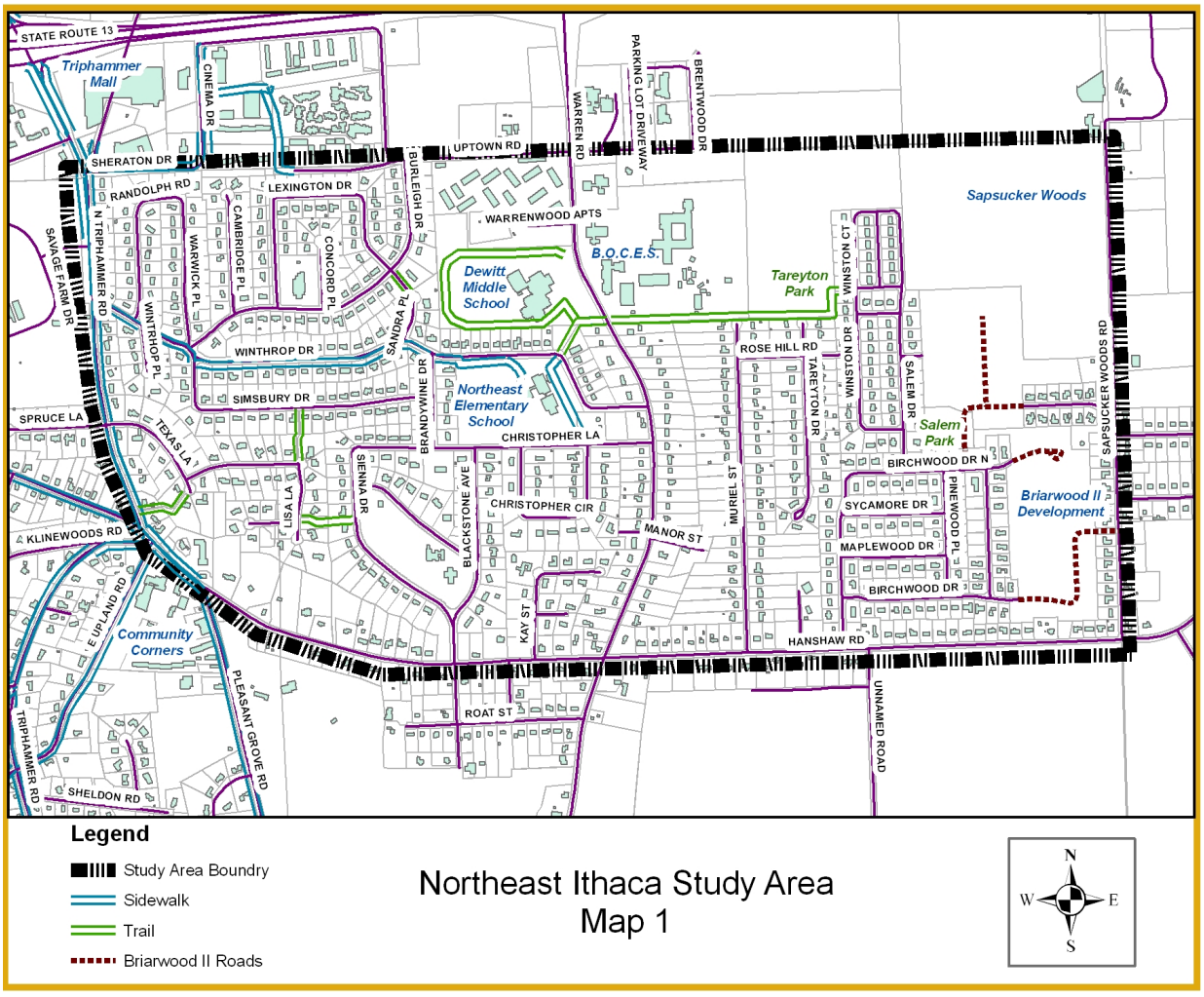
Another activity center is Community Corners located at the southwestern edge of the study area. It is a mixed-use destination for boutique-type shops and offices. The Triphammer Mall, a hotel and other amenities are located at the northwestern edge of the study area, with the largest retail mall in the county (Pyramid Mall) located just beyond that boundary. A portion of the Cornell Laboratory of Ornithology's Sapsucker Woods Bird Sanctuary is located in the northeast section of the study area, and just to the north of the study area is a large medical complex.

Sidewalks were not generally in vogue when these neighborhoods were constructed during and after the 1950's. While a few sidewalks have been constructed, either as stand-alone projects or as part of road reconstruction projects, in general, walkers in this area use the roads. There are only approximately 10,000 feet of sidewalks currently in this study area base on the Ithaca-Tompkins County Transportation Council's assessment of sidewalks. West of Warren Road, pedestrians, in general, report being comfortable walking on the neighborhood streets, however that is not often the case in the area to the east of Warren Road.

The neighborhood to the west of Warren Road has shorter and more curvilinear streets that generally slow down traffic and limit through traffic. There are numerous short neighborhood walkways that link cul-de-sacs and create longer neighborhood walking loops on roads that otherwise are dead ends for motor vehicles. However, as one approaches the schools both pedestrian and motor vehicle traffic levels increase and the need for separating pedestrians from motor vehicles increases.

East of Warren Road, the roads are longer and straighter, which encourages motorists to drive at higher speeds. A higher percentage of rental housing units and multi-family apartment complexes lead to a higher density of residents and higher traffic levels.

One multi-use trail has been developed on the north edge of this area to enhance access to the schools, but in general this facility needs to be upgraded and extended to more effectively serve neighborhood residents and address safety and aesthetic concerns. Currently, this is the only dedicated walking facility available for this eastern neighborhood. (See Map 1)



Local Plans and Initiatives

- The "Briarwood II" Master Plan and Subdivision Plans for residential development, provided by the Town of Ithaca. The Plan area is located to the south of Sapsucker Woods and west of Sapsucker Road, and is currently under review by the Town of Ithaca. (See Appendices 7.2) This development would connect Birchwood Drive to Sapsucker Woods Road. The road would be extended eastward and then a sharp curve north and then curve back to the

east to make the connection. Beechwood Drive would be extended eastward and then terminate in a cul-de-sac. The existing Sanctuary Drive off Sapsucker Woods would be connected to Beechwood Drive by a curving roadway called Lucente Way. There is currently access to Salem Park from Lucente Way. The preliminary subdivision plan indicates:

> *"Pedestrian Path – 4' paved shoulder along west side of Lucente Way to Beechwood; continuing along the north side of Beechwood to east side of Briarwood; continuing as 5 foot paved walkway south and east of ditch east to lot 41; continuing as a 5 foot paved walk south of shoulder east to Sapsucker Woods Road."*

- The Prioritized Pedestrian Corridor Needs map, provided by the Town of Ithaca, shows priority corridors for pedestrians and outlines criteria to provide sidewalks for new and existing development. (See Appendices Section 7.2)
  - The existing trail network is shown with:
    - Northeast Recreation Trail connected to the Winthrop Walkway connecting Tareyton Park/Winston Court to the Simsbury/Winthrop/Burleigh intersection
    - The Dewitt exercise trail around the Dewitt Middle School.
    - Sandra Place walkway connecting Sandra Place to Burleigh/Lexington.
    - Simsbury/Texas Lane Walkway that connects those two streets.
    - Lisa Lane Walkway that connects Lisa Lane to Sienna Drive.
  - Warren Road is listed as an existing pedestrian and Bikeway corridor
  - Hanshaw Road is shown as an essential pedestrian corridor with an immediate need.
  - Muriel Street is listed as a recommended pedestrian corridor with a long-term need.
  - A future recreation trail is indicated along Salem Drive through Birchwood Drive North and then through the new residential development to Sapsucker Woods Road.
- The Town of Ithaca Recreation Facilities map, prepared by the Town of Ithaca, shows parks and trails within the study area. and is also included in the abovementioned Pedestrian Corridor Needs map. (See Appendices 7.2)
- The Hanshaw Road Improvement Design Plans, provided by the Tompkins County Highway Division, show a proposed sidewalk along the north side of the Hanshaw Road connecting to the Community Corners area. The amount of sidewalk to be included in the project is dependent on project costs once the bids are received for the construction of the roadway.
- The Tompkins County Comprehensive Plan, provided by the Tompkins County Planning Department, has an emphasis on building strong communities in compact nodes. Development of pedestrian infrastructure to encourage walkability is a key component of the Plan. The Comprehensive Plan supports establishment of pedestrian pathways and bikeways to link communities, improve community cohesiveness, and increase activity of the people in the communities.
- The Sidewalk Survey, provided by the Ithaca-Tompkins County Transportation Council, is a database and GIS coverage area for all the sidewalks within Tompkins County.

Community Input

The community provided input at four points in the study:

A. Steering Committee/Project Team Discussions

The steering committee and project team met on two occasions to discuss the project and identify the walkability needs of the study area. The first meeting was held in the Town of Ithaca conference room where the project team reviewed the project scope and then facilitated discussions on walkability concerns from the steering committee members. The committee discussed specific issues, locations of walking concerns, and the general character of neighborhoods within the study area. This open and informative discussion provided a wonderful base to progress the remainder of the study.

Members of the steering committee and the project team also spent one morning walking many of the streets and trails to observe the field conditions of the neighborhoods within the study area. This provided additional insight to the concerns and information discussed in the first meeting.

B. Solicited Community Input

A steering committee member volunteered to inform local residents about the project and solicit input through postings on the elementary and middle schools' parent-based list-serve discussion groups. Nineteen responses were received as a result of this outreach, with input detailing concerns and locating several areas that should be looked at and improved. Please see Appendix 7.3 for copies of the correspondence.

C. Workshop Discussions

A workshop was held the afternoon of October 14, 2006 to present and educate participants on the importance of community walkability and methods of measuring the degree of walkability in a community. The workshop was initially attended by 12 people from the community, however, most of the group could not stay through the whole presentation. During the presentation, there was opportunity to discuss walkability and review the components and use of the *Walkability Assessment Survey* tool. Instructions were also given on where to submit the completed forms. The remaining three individuals then participated in a field demonstration of use of the survey tool for data collection and walkability assessment. The input received at this workshop is part of the summary in Section 3.1.4.

D. Completed Field Surveys

Six completed surveys were received for the Northeast Ithaca community. These surveys are included in Appendix 7.6. The concerns identified in the surveys are included in the following "Summary of Needs" section and also presented graphically in Figure 3.1. Information received from the surveyors included multiple entries for sections of the survey looking for a single entry or description of condition as instructed in the workshop. Therefore, the results presented were ambiguous and was not a concise assessment of the route surveyed.

Summary Of Needs

The needs and concerns conveyed from the four inputs listed above are summarized by street segment, crossing locations at intersections, and trails.

The major collectors or minor arterial roadway segments in the study area are:

- **Hanshaw Road** is a two-lane roadway with generally gravel shoulders about 4' in width. The concerns for this roadway are excessive vehicular speed, no sidewalk, and a perception that this is an unsafe route for students walking to school.

Hanshaw Road

- **Triphammer Road** is a two-lane roadway with shoulders and curbing. It was reconstructed 2006 with bike lanes and a sidewalk in its east shoulder, separated from the road by a curb and tree lawn. There is sidewalk along the majority of this section on both sides of the street, with a short section at the southern end of the segment with sidewalks on one side only. This sidewalk ends where Triphammer intersects with Hanshaw Road at Community Corners. The main concern is that vehicles do not yield to pedestrians in crosswalks.

- **Warren Road** is a two-lane roadway with generally gravel shoulders about 4' in width. Warren Road was reconstructed in 2005 with paved shoulders tinted green and stenciled for biking and pedestrian use. The stencils and yellow diamond pedestrian and bicycle warning signs remain, but the green coloring has disappeared. While the road widening is a significant improvement over what it replaced, particularly for commuting bicyclists, the design does not effectively serve the needs of children. The five-foot shoulders are not comfortable for walkers and children walking to school due to proximity to vehicles and excessive vehicle speeds on the roadway. Walkers also complain of getting sprayed by passing vehicles in wet weather.

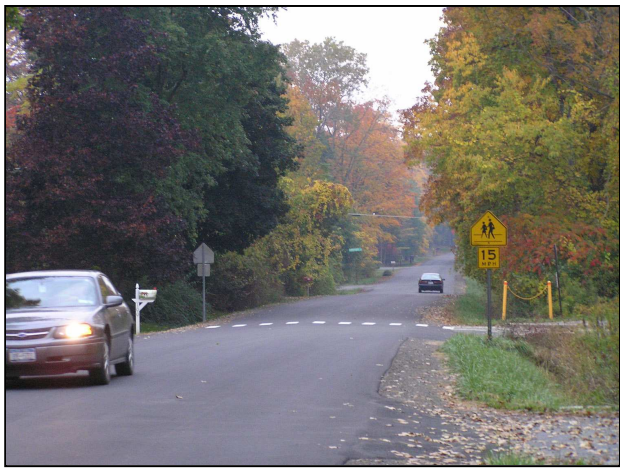
Warren Road

The minor collector roadway segments include:

- **Uptown Road** is a two-lane street that serves as a connection between Warren Road and Burleigh Drive on the north edge of the study area. This connection characterizes the roadway as the collector between Triphammer Road and Warren Roads. There is a concern with the amount and speed of vehicular traffic on this road, as well as concerns that there is no sidewalk, no adequate shoulders for walking and a fairly deep drainage ditch that runs along the roadside.

Uptown Road

- **Christopher Lane** is a two-lane roadway with gravel shoulders about 3' in width. There are no sidewalks and there are some deep swales. Between the intersections of Brandywine and Warren Road, is a popular student-walking route to Northeast Elementary School and Dewitt Middle School. There are concerns that there is not an adequate shoulder for walking, vehicle speed is excessive, and, at the school, vehicles that are queued to drop off students block the view for walkers wishing to cross the roadway.



Christopher Lane

- **Blackstone Avenue** connects Hanshaw Road to Christopher Lane and is a popular walking route for Northeast and Dewitt students coming from the southwest part of the study area and streets south of the study area such as Roat Street and Orchard Street. The concerns for this roadway are there is no defined crosswalk at Hanshaw Road and it is difficult to cross Hanshaw Rd. due to excessive speeds of vehicles on the road.

- **Winthrop Drive** is an east–west running two lane street that links Triphammer Drive to Warren Road and passes along the north and east edge of Northeast Elementary School. Currently, a sidewalk exists along Winthrop from Triphammer to the northwest corner of the school property on the south side of the

Winthrop Drive

road. Where the sidewalk does exist, the crossing distance for pedestrians at intersecting roadways is very long, up to 60' in length, because the radii at the intersections are very large. Not only does the long crossing distance increase pedestrian exposure to motor vehicles, the wide radii also allow motorists to drive at high speeds when making turns, further compromising pedestrian safety. The main concern for this roadway is excessive vehicle speed, especially near the school.

- **Burleigh Drive** is an east–west running two-lane roadway with gravel shoulders less than 3' in width. There are no sidewalks and there are shallow swales along the edge of shoulder. The shoulder is partially washed out on the sections that have a slight grade, making the edge unusable for walking. Concerns are that a considerable amount of through traffic uses this as a connection from Warren Road to Triphammer Road and vehicle speeds are excessive.
- **Muriel Street** is a north–south residential street that was improved in 2006 with new asphalt overlay and 3' gravel shoulder. The concerns are that vehicles travel at excessive speeds, the shoulders are not easily traversable and some plantings and brush interfere with sight distances and need to be cut back along the side of the road.
- **Salem Drive** is a north–south two lane residential street with gravel shoulders less than 3' in width and no sidewalks. Concerns for this street are excessive vehicle speed and there is a sharp curve at the Birchwood Drive intersection that has limited sight distance.

Muriel Street

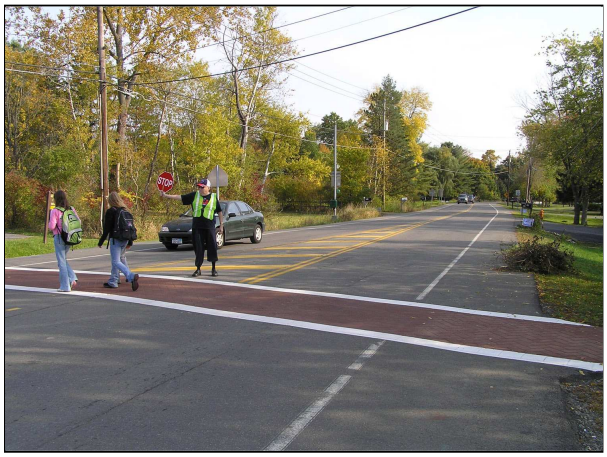
- **Sapsucker Woods Road** is a two-lane roadway with gravel shoulders less than 3' in width without sidewalks and some deep swales along the west side of the street. There were no comments received from the public concerning this roadway.

The residential street segments include:

- **Lexington Drive** is a two-lane looping street with gravel shoulders less than 3' in width. There are no sidewalks and there are shallow swales along the edge of shoulder. The concern for this street is that there is not a sidewalk.
- **Randolph Road** is a two-lane loop street with gravel shoulders less than 3' in width without sidewalks and with shallow swales along the edge of the shoulder. The concern for this street is that there is not a good walking connection to Burleigh Drive.
- **Brandywine Drive** is a two-lane street with no shoulders and no sidewalks and with shallow swales along the edge of the shoulder. It serves as a collector route for many children walking to school from Simsbury Drive and other streets. The speed of traffic turning from Winthrop to Brandywine and the very wide pedestrian crossing were the main concerns.

The crossing segments include:

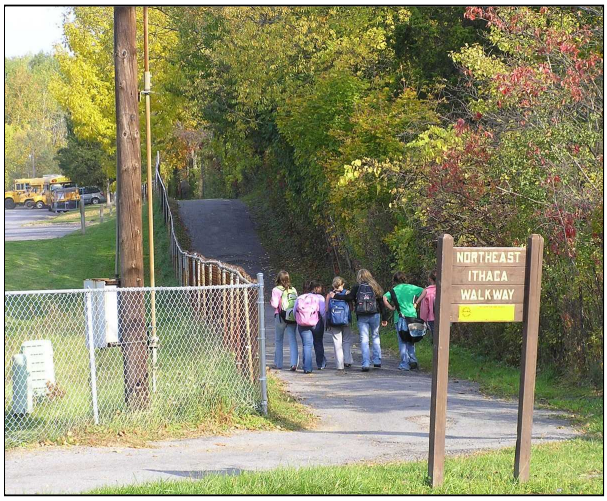
- **Intersection of Burleigh Drive, Warwick Place and Winthrop Drive** is a wide-open intersection with wide turning radii with excessive crossing widths. The crossings are also not well defined, and there is no crossing guard for school children.
- **Intersection of Hanshaw Road and Blackstone Ave** is a wide-open intersection without well-defined crossings, and there is no crossing guard for school children.
- **Crossing of NE Recreation Trail and Warren Road** is an existing crosswalk at the Northeast Recreation Trail that has colored and stamped asphalt pavement. A bus stop is adjacent to the crosswalk and when the bus parks at this location, the crosswalk is blocked and view to vehicular traffic is impeded.



NE Recreation Trail Crossing on Warren Road

The trail segments include:

- **Northeast Recreation Trail:** The Northeast Recreation Trail (also known as the Northeast Ithaca Walkway) is the most direct walking route to the schools for many residents of the study area who live east of Warren Road. It provides a direct connection to Tareyton Park and Winston Court Apartments. The photo at right shows the entrance on the west end of the trail. The concerns and needs are that the trail needs resurfacing, there is no lighting along the trail, which raises concerns about safety, and the fence makes some people feel closed in and unsafe without an escape route. Also, the chain link fence is rusted and the institutional feel of the pathway is not inviting or comfortable.



Northeast Recreation Trail

- **Neighborhood Connector Trails:** In the neighborhoods west of Warren Road there are three short connector trails that are constructed on easements along property boundaries between several residences. These connectors are some 500 feet in length and help connect school and destination routes as well as recreational routes through the neighborhoods. The three connectors are:
  - **Sandra Place Walkway:** This short trail provides a pedestrian connection between two neighborhoods from the Sandra Place cul-de-sac and Burleigh Dive across from Lexington Drive.

- **Lisa Lane Walkway:** This short trail provides a pedestrian connection between two neighborhoods from Lisa Lane to Sienna Drive.
- **Simsbury/Texas Lane Walkway:** This short trail provides a pedestrian connection between two neighborhoods from the east end of Texas Lane to Simsbury Drive.

Simsbury/Texas Lane Walkway

Recommended Projects and Changes To Pedestrian Infrastructure Based on Prioritized Goals

In Section 2, many needs and concerns were listed that describe ways that walkability is hindered on a particular street, in a neighborhood area, or for the entire community. The goals that were developed in Section 2 will be the guide for addressing and prioritizing steps and projects to improve the walkability in the study area. In addition, the ranking results from the revised survey tool will be incorporated into the process. This section lists projects to address the study area needs for each project goal. The more goals that are satisfied for an area of improvement, the higher the priority of that action.

The prioritized project goals are:

1. Build on current pedestrian initiatives and plans by municipalities
2. Provide safer, more accessible school routes for children.
3. Provide safer, more accessible crossings at intersections.
4. Provide safer, more accessible walking routes to desired destinations.
5. Provide recreational walking loops through the community.
6. Reduce conflict between vehicular traffic and walkers.

Goal 1. Build on current pedestrian initiatives and plans by municipalities

Listed above under *Local Plans and Initiatives* are several plans to improve pedestrian infrastructure and walkability in the study area. The Town of Ithaca's "Prioritized Pedestrian Corridor Needs" map, Tompkins County's "Hanshaw Road Improvement" Design Plans and the "Briarwood II Residential Development" are specific plans within the study area. Based on the plans and the study needs, this goal can be accomplished by:

a) Implementing the proposed sidewalk improvements in the **Hanshaw Road** Improvement Design Plans, which ranked as a high priority link, when the road is reconstructed, to create a safer pedestrian link to Community Corners along the south edge of the study area. See Goal 4, below, for more detail.

b) As recommended on the Pedestrian Corridor Needs map and as a high priority link, a sidewalk should be constructed on one side of **Muriel Street** to connect Hanshaw Road and the Northeast Recreation Trail. The street is straight and long and vehicle speeds are sometimes excessive, therefore, traffic calming measures should also be incorporated in the project. A sidewalk would increase safety for school children, people walking from the Winston Court area, and recreational walkers. The connection to the Northeast Recreation Trail should be upgraded and the intersection at **Rose Hill Road,** a high priority link**,** should be improved to encourage motorists to make full stops at the existing stop sign.

c) As identified on the Pedestrian Corridor Needs map and as a high priority link, **Salem Drive** is part of a planned recreational trail corridor that connects to Salem from the south and then east to Salem Park and Sapsucker Woods Road. The intersection at Birchwood Drive should be improved to increase visibility, slow down traffic and better accommodate pedestrians. Traffic calming measures and the construction of a sidewalk

or wide shoulder should be considered to improve walking conditions along this section of the roadway. This is also the recreational trail connection to the **Briarwood II Residential Development** that has wide shoulders and sidewalks planned for the street system. The intersection of Salem and Hanshaw has poor visibility that should be addressed in the Hanshaw Road Improvement plans. Also, Salem slopes rather steeply down to Hanshaw Road, making it difficult for cars to stop for pedestrians, bicyclists and motorists on Hanshaw.

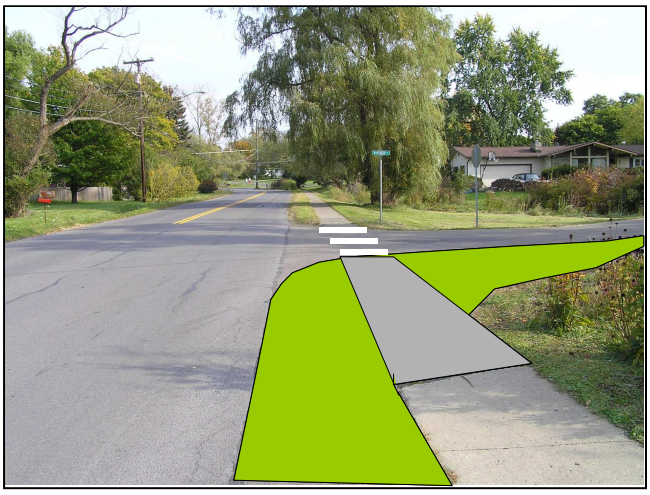
d) Connections of the Town of Ithaca's trails to the Village of Lansing's greenway system should be investigated, especially in light of efforts of both municipalities to plan for trail and pedestrian systems.

Goal 2. Provide safer, more accessible school routes for children.

Currently, there are not adequate pedestrian facilities available for school children walking to school from the south or the east part of the study area. Safer routes to schools should be created for children walking to the three schools at the heart of the study area – Northeast Elementary School, DeWitt Middle School and Tompkins-Seneca-Tioga Board Of Cooperative Educational Services (TST BOCES). The following improvements are proposed:

a) Given the population density of the area, and the central location of three schools all adjacent to, or very near **Warren Road**, a sidewalk along at least one side of Warren Road is warranted to enhance pedestrian safety. This roadway was also listed as a high priority link from the survey tool. The current 5' shoulders have added some measure of safety, however, traffic volumes are high since the road is classified as an arterial, and there is a public transit route on the road. If a sidewalk were added to one side, then crosswalks should be added at regular intervals to provide safe access to the sidewalk, particularly at intersecting roadways. These crosswalks could also be designed to serve as traffic calming devices, as speeding is reportedly a problem on this smooth and wide roadway.

b) **Winthrop Drive:** This street is a high priority link from the revised survey tool. Curb radii should be shortened to slow turning traffic and reduce pedestrian crossing distance, detectable warnings should be added where sidewalks meet the road, and high visibility crosswalks should be installed at each crossing. New sidewalk should be constructed along Winthrop across the whole north and east border of the school and continue on the south shoulder to the intersection of Warren Road. Location of the Winthrop Drive



Narrowing of Brandywine Drive Intersection with Winthrop Drive

crossing to Dewitt, now located at a 90 degree turn, should be examined and possibly raised to help slow vehicular traffic.

c) **Christopher Lane:** This street is a medium priority link from the revised survey tool. A sidewalk should be developed on the north shoulder of the road that will link to the school's walking network and to the Christopher Lane school exit.

d) **Brandywine Drive:** This street is a medium priority link from the revised survey tool. A sidewalk connector on one side between Christopher Lane and Winthrop Drive is recommended.

e) **Blackstone Avenue:** This street is a medium priority link from the revised survey tool. A sidewalk on one side of the street is recommended for the Hanshaw Road – Christopher Lane connection. The intersection of Blackstone and Hanshaw should have a highly visible crosswalk to improve safety of the crossing.

f) **Burleigh Drive** is a heavily used road that connects Triphammer to Warren Road and the numerous medical offices, daycare facilities, the airport and adjacent office buildings. Many students cross Burleigh to get to Winthrop Drive and the schools. Improvements to **Burleigh Drive** that should be considered include a sidewalk or paved shoulders, traffic calming measures and increased enforcement to slow down traffic. This street is a medium priority link from the revised survey tool.

g) **Uptown Road** is used by many Dewitt and BOCES students who live along Burleigh Drive or in the University Park or other apartments along the north edge of the study area. A sidewalk or adjacent trail is needed along Uptown Road between Warren Road and the intersection of Burleigh Road. This street is a medium priority link from the revised survey tool.

h) As already mentioned**, Muriel Street** and **Salem Drive** should have sidewalks, as well as **Rose Hill Road.** Also, a connection from **Salem Drive** to the **Northeast Trail** and the portion of **Winston Drive** from **Rose Hill Road** to the **Northeast Trail** should have sidewalks. These roads ranked as high priority and these connections will provide a safe walking loop from the main north-south streets to the Northeast Trail and then to the schools.

i) The **Northeast Recreation Trail** should be upgraded to encourage more use as a safe route to area schools. Neighborhood connectors to the trail from Muriel Street and Tareyton Road should be improved with better signage, lighting, gates and access control, and enhanced visibility. The trail is bounded by two chain link fences to provide security to adjacent residential properties on the south and BOCES on the north. While these fences may contribute to the perceived security of neighbors, they detract from the visual experience, comfort and perceived security on the trail itself. The Town of Ithaca, owner of the trail, should discuss the necessity of the fence along the edge of the BOCES property. School boundaries are not typically fenced and there is no reason that the trail would create the need for fencing along this boundary. Lighting should also be added to the trail so that it becomes more functional and safe during dark winter mornings and afternoons. This trail is a medium priority link from the revised survey tool.

***Goal 3. Provide safer, more accessible crossings at intersections*.**

Crossings at key or overly wide intersections should be improved to increase pedestrian crossing visibility and safety. The following improvements are proposed:

a) **Crossing where Northeast Recreation Trail meets Warren Road:** The addition of a raised crosswalk and a flashing beacon or a pedestrian-actuated traffic signal may be warranted in this location due to the heavy use by students crossing Warren Road. Also, the bus stop should be relocated so that a bus does not block or reduce visibility to persons using the crosswalk.

b) The key improvement in the western half of the study area is to extend and improve the existing **Winthrop Drive sidewalk** and create other sidewalks near the Northeast school property as described above. Generally, walking in the southwest quadrant of the study area, south of Winthrop and west of Warren, is done comfortably on the streets and with the use of a few short connector walkways (Lisa Lane, Simsbury/Texas Lane, and Texas Lane to Community Corners). The connector from Texas Lane to Community Corners has been modified to a degree due to the construction of new offices for Warren Real Estate. A more direct linkage to Community Corners on property between the real estate office buildings and the Village Hall would improve access to this important commercial and civic center.

c) Reconfiguration of existing intersections found throughout the study area is a cost-effective way to make improvements to the pedestrian environment. Shortening the turning radii at intersections slows down traffic and reduces crossing distance for pedestrians. Proper, high visibility crosswalks and stop bars are also essential and low-cost pedestrian infrastructure improvements. In particular, improving intersection geometry at **Burleigh/Winthrop/ Warwick/ Simsbury intersection** and the **Sandra Place/Winthrop Drive** would slow traffic and improve pedestrian safety in this area.

d) Crossings at intersections to Community Corners should be improved to address safety of pedestrians trying to access shops and services at Community Corners. See Goal 4, below, for more detail.

e) On **Triphammer Road** at the intersection with **Texas Lane** and **Spruce Lane**, the crossing should be enhanced with a highly visible crosswalk and signing to enhance the crossing.

Goal 4. Provide safer, more accessible walking routes to desired destinations.

Currently, there are not adequate pedestrian facilities to traverse the study area from the south and east portions of the study area to destinations such as Community Corners, Triphammer Mall shopping area, and the schools. The following improvements are proposed:

a) **Hanshaw Road** is currently planned for 2008 reconstruction and a sidewalk will be included in the project scope. The sidewalk is to be constructed in the north shoulder of Hanshaw Road and will begin at Community Corners, across from the Pleasant Grove

intersection, and continue past Warren Road to Sapsucker Woods Road. If the bids are higher than anticipated, it is possible that the sidewalk will be ended at Salem Road. This new sidewalk is a critical component of the area's pedestrian infrastructure that will create an important link for much of the study area to Community Corners, the area's commercial and civic center.

b) While there are some existing sidewalks in the **Community Corners** area, they are narrow, in poor condition, and their design does not meet current design standards. Continuity of sidewalks across driveways is broken and crossings at intersections are very poorly designed, with large turning radii that create very long crossing distances for pedestrians, poorly marked crosswalks, and inadequate signage. The Community Corners area is in need of major upgrades to the pedestrian system to accommodate pedestrians trying to access the area. This improved access will help it to function as a major commercial and civic destination for this area. New sidewalks, crosswalks and signage, along with some consideration towards redesigning intersections at both Pleasant Grove/Hanshaw and Triphammer/Upland/Hanshaw Roads, should be installed in the near future to address many of the unsafe conditions that currently exist for pedestrians.

Goal 5. Provide recreational walking loops through the community

The development of a recreational walking network, particularly along the northern and eastern borders of the study area to link many of the multi-family housing areas and natural areas to the existing Northeast Recreation Trail and Tareyton Park should be explored. The following improvements are proposed:

a) The creation of short **pedestrian connector walkways** similar to the connectors in the western portion of the study area (e.g., Simsbury/Texas Lane Walkway) should be investigated for a Muriel to Warren connector in the vicinity of the Christopher Lane intersection; a Muriel to Tareyton connector; and a Tareyton to Salem Drive connector. These connectors would create more direct, off-road walking routes for improving school access and for developing the recreational walking and exercise loops that are common in the western part of the study area. Also, the development of a **connector trail to Dewitt School** from Burleigh or Sandra Place would allow more direct access to the schools for children in this quadrant of the study area.

b) Improvements to the **Northeast Recreation Trail** are described above and are critical to improving access to the schools. An improved facility would also benefit adults looking to use the trail for exercise in neighborhood walking loops, as well as access to the recreational trails in Sapsucker Woods/Laboratory of Ornithology.

c) Development of a multi-use trail along the northern edge of the study area should be explored. There are no existing trails or roadways along the northeast portion of the study area along the boundary of the Town of Ithaca and the Village of Lansing. Also, just outside of the northwest corner of the study area, the Village of Lansing has recently experienced major street improvements that have greatly enhanced the mall area for pedestrians and bicyclists, while also improving traffic flow and access for motorists.

The development of a **multi-use trail** along the northern edge of the study area would enhance pedestrian access to the mall area for Northeast Ithaca residents and improve access to schools, the Laboratory of Ornithology, medical facilities, Tareyton Park and other area destinations. The trail corridor could begin at Triphammer Road and Sheraton and be located along the shoulder of Sheraton Drive, then pass University Park and other apartment complexes to the intersection of Uptown Road. The Village of Lansing has developed greenway plans and some trail development has occurred in the University Park area. Along Uptown, the trail could become a sidewalk or be offset from the roadway. After crossing Warren Road at the Arrowwood Drive traffic signal, the trail could be located in the wide south shoulder of Arrowwood, then continue east on undeveloped properties toward the Laboratory of Ornithology. A linkage to Tareyton Park and the Northeast Recreation Trail could be developed at this point, possibly through the Winston Court complex, which could be the end of the trail. Linkages to nature trails in and around Sapsucker Woods would have to be carefully considered due to the importance of this wetland sanctuary for bird habitat and public education.

d) The development of the pedestrian linkage through the proposed Briarwood II Development to **Sapsucker Woods Road** would enhance access to and through the Sapsucker Woods Area, a popular destination for area residents and visitors to Ithaca and Tompkins County. Current traffic levels on Sapsucker Woods Road may not warrant a sidewalk, however imminent residential subdivisions may provide the need and opportunity for sidewalk development.

e) Improvements to the **Northeast Recreation Trail** have already been discussed. Trail development and improvements on school properties should also be considered to create safe and attractive off-road walking routes and to enhance routes to school.

f) **Dewitt School** has and exercise trail that should be completed and linked to the sidewalk that connects Northeast to Dewitt. It may be possible to use school properties at **Northeast** and **BOCES** to create walking loops and enhance overall connectivity.

Goal 6. Reduce conflict between vehicular traffic and walkers.

Improvements to the **Northeast Recreation Trail** and at key intersections have already been discussed.

The following prioritized improvements are proposed:

Top 5 Priority Projects for Improving Walkability in the Northeast Area

1. **Complete, extend and upgrade sidewalks to Northeast Elementary School, including new and upgraded sidewalks along Winthrop Drive between Triphammer Road and Warren Road and new sidewalks at Christopher Lane, Brandywine Drive and Blackstone Avenue.**

2. **Improve safety and comfort along Northeast Ithaca Recreation Trail and create better neighborhood linkages to the trail to improve student access to schools and to enhance overall walking infrastructure in the study area.**

3. **Construct sidewalks, provide traffic calming and explore the creation of short walkway connectors in the vicinity of Muriel and Salem east of Warren Road in the study area including Rose Hill Road and connections to Salem Drive and Winston Drive to provide a continuous loop.**

4. **Construct the Hanshaw Road sidewalk and improve sidewalks, crossings and intersections at Community Corners to ensure that this important commercial and civic destination is accessible and safe for pedestrians. Also, high visibility crossings at Blackstone and Warren should be included.**

5. **Develop a community greenways task force or advisory committee that can look at possible new neighborhood connectors, longer greenways and trails to link neighborhoods and destinations in the study area. Enforce the trail connections proposed for the Briarwood II development.**

Figures and maps on the following pages:

- Revised Survey Results Ranking Matrix
- Priority Ranking of Walkway Improvements
- Walkability - Recommended Projects Map

REVISED SURVEY RESULTS RANKING MATRIX

NAME	Road_Class	Rank_Value	Route_Prio	Rank_Val_1	Walk_Type	Rank_Val_2	Walk_Cond	Rank_Val_3	Walk_Envi	Rank_Val_4	Non_Peds	Rank_Val_5	Crossing	Rank_Val_6	Tot_Rating
HANSHAW RD	Collector	10	School + Destination	25	Shoulder	10	Many Problems	8	Many Problems	8	Many Problems	8	Awful	10	79
MURIEL ST	Local Road	5	School + Destination + Recreation	30	Shoulder	10	Many Problems	8	Many Problems	8	Awful	10	Many Problems	8	79
SALEM DR	Local Road	5	School + Destination + Recreation	30	Shoulder	10	Many Problems	8	Many Problems	8	Awful	10	Many Problems	8	79
BLACKSTONE AVE	Local Road	5	School + Destination + Recreation	30	Road	15	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	74
CHRISTOPHER LA	Local Road	5	School + Destination + Recreation	30	Road	15	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	74
WINSTON CT	Local Road	5	School + Destination + Recreation	30	Road	15	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	74
WARREN RD	Arterial	15	School + Destination + Recreation	30	Shoulder	10	Good	4	Good	4	Some Problems	6	Good	4	73
WINTHROP DR	Local Road	5	School + Destination + Recreation	30	Road	15	Some Problems	6	Good	4	Some Problems	6	Some Problems	6	72
ROSE HILL RD	Local Road	5	School + Destination + Recreation	30	Shoulder	10	Many Problems	8	Some Problems	6	Some Problems	6	Some Problems	6	71
WINSTON DR	Local Road	5	School + Destination + Recreation	30	Shoulder	10	Many Problems	8	Some Problems	6	Some Problems	6	Some Problems	6	71
N TRIPHAMMER RD	Arterial	15	School + Destination + Recreation	30	Sidewalk	10	Very Good	2	Very Good	2	Very Good	2	Some Problems	6	67
SAPSUCKER WOODS	Local Road	5	School + Recreation	20	Road	15	Many Problems	8	Some Problems	6	Some Problems	6	Some Problems	6	66
UPTOWN RD	Local Road	5	Destination + Recreation	15	Road	15	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	59
BIRCHWOOD DR	Local Road	5	School	15	Road	15	Some Problems	6	Good	4	Some Problems	6	Some Problems	6	57
BIRCHWOOD DR N	Local Road	5	School + Recreation	20	Shoulder	10	Some Problems	6	Good	4	Some Problems	6	Some Problems	6	57
BURLEIGH DR	Local Road	5	Destination + Recreation	15	Road	15	Good	4	Very Good	2	Some Problems	6	Many Problems	8	55
LEXINGTON DR	Local Road	5	School	15	Road	15	Good	4	Very Good	2	Some Problems	6	Many Problems	8	55
ARROWOOD DR	Local Road	5	School	15	Road	15	Good	2	Very Good	2	Some Problems	6	Many Problems	8	53
BRANDYWINE DR	Local Road	5	School	15	Road	15	Very Good	2	Very Good	2	Some Problems	6	Many Problems	8	53
TAREYTON DR	Local Road	5	School + Recreation	20	Road	15	Very Good	2	Very Good	2	Good	4	Good	4	52
KAY ST	Local Road	5	School	15	Road	15	Good	4	Good	4	Good	4	Good	4	51
MAPLEWOOD DR	Local Road	5	School	15	Road	15	Good	4	Good	4	Good	4	Good	4	51
SANCTUARY DR	Local Road	5	School	15	Road	15	Good	4	Good	4	Good	4	Good	4	51
STONYBROOK LN	Local Road	5	School	15	Road	15	Good	4	Good	4	Good	4	Good	4	51
SYCAMORE DR	Local Road	5	School	15	Road	15	Good	4	Good	4	Good	4	Good	4	51
CONCORD PL	Local Road	5	School + Recreation	20	Shoulder	10	Good	4	Very Good	2	Good	4	Good	4	49
MANOR ST	Local Road	5	School	15	Road	15	Good	4	Very Good	2	Good	4	Good	4	49
RANDOLPH RD	Local Road	5	School + Recreation	20	Shoulder	10	Good	4	Very Good	2	Good	4	Good	4	49
ST CATHERINE	Local Road	5	School + Recreation	20	Shoulder	10	Good	4	Very Good	2	Good	4	Good	4	49
TEXAS LA	Local Road	5	School + Recreation	20	Shoulder	10	Good	4	Very Good	2	Good	4	Good	4	49
WARWICK PL	Local Road	5	School + Recreation	20	Shoulder	10	Good	4	Very Good	2	Good	4	Good	4	49
WINTRHOP PL	Local Road	5	School	15	Road	15	Good	4	Very Good	2	Good	4	Good	4	49
CAMBRIDGE PL	Local Road	5	School	15	Road	15	Very Good	2	Very Good	2	Good	4	Good	4	47
CHRISTOPHER CIR	Local Road	5	School + Recreation	20	Shoulder	10	Very Good	2	Very Good	2	Good	4	Good	4	47
LISA LA	Local Road	5	School	15	Road	15	Very Good	2	Very Good	2	Good	4	Good	4	47
LISA PL	Local Road	5	School	15	Road	15	Very Good	2	Very Good	2	Good	4	Good	4	47
SANDRA PL	Local Road	5	School	15	Road	15	Very Good	2	Very Good	2	Good	4	Good	4	47
SIENNA DR	Local Road	5	School + Recreation	20	Shoulder	10	Very Good	2	Very Good	2	Good	4	Good	4	47
SIMSBURY DR	Local Road	5	School + Recreation	20	Shoulder	10	Very Good	2	Very Good	2	Good	4	Good	4	47
BRIARWOOD DR	Local Road	5	Recreation	5	Shoulder	10	Some Problems	6	Good	4	Some Problems	6	Some Problems	6	42
PINEWOOD PL	Local Road	5	Recreation	5	Shoulder	10	Some Problems	6	Good	4	Some Problems	6	Some Problems	6	42
SHERATON DR	Local Road	5	Destination	10	Sidewalk	5	Good	4	Good	4	Good	4	Some Problems	6	38

Northeast Ithaca Walkability - Recommended Projects

Study of Future Trail to connect Tripmmmer Mall area to Sapsucker Woods

Planned Trail with Briarwood II Development

Legend

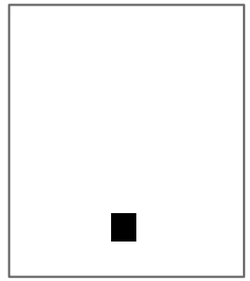
- Study Area Boundry
- Existing Multi-Use Path
- Existing Sidewalk
- Upgrade Multi-Use Path
- Proposed Sidewalk
- Future Sidewalk
- Future Multi-Use Path
- Existing Crosswalk
- Improved Crosswalk
- Proposed Crosswalk
- Briarwood II Roads

May 23, 2007

Stantec

Northeast Greenways

NE Ithaca Priority Ranking of Walkway Improvements



Legend

- Study Area Boundry
- Sidewalk Ranking High Priority
- Sidewalk Ranking Medium Priority
- Sidewalk Ranking Low Priority
- Sidewalk
- Multi-Use Path
- Briarwood II Roads
- Upgrade Trail

Stantec

Northeast Greenways

3.2 VILLAGE OF TRUMANSBURG CASE STUDY

Study Area Description

The Village of Trumansburg is a classic 19th century walkable community, with a Main Street comprised of civic and public buildings, churches, retail and specialty stores, restaurants, cafes and bars. Adjacent to this commercial and civic center are historic residential neighborhoods with houses located at a close, yet comfortable distance from each other and a network of sidewalks separated from the street by a grass tree lawn and street trees.

Main Street Sidewalk Improvement

However during the 20th century, the walkability of the Village center was compromised by road widening projects that detracted from the pedestrian environment. Although there are approximately 38,800 feet of sidewalks in the Village, the sidewalk networks both downtown and in the community's historic residential neighborhoods have deteriorated dramatically during the past 100 years.

Community members have been working together for more that ten years around the Main Street Project, which has the goal of redesigning and rebuilding Main Street. The Project includes new sidewalks and pedestrian amenities in the Village center. During the past year, much of the Main Street Project has been constructed and the vision of Village residents has largely come to fruition. With the momentum and experience gained from successfully implementing the Main Street Project, the Village is now looking ahead to other projects that will encourage walking and improve walking conditions in and around the Village. (See Map 2 on next page)

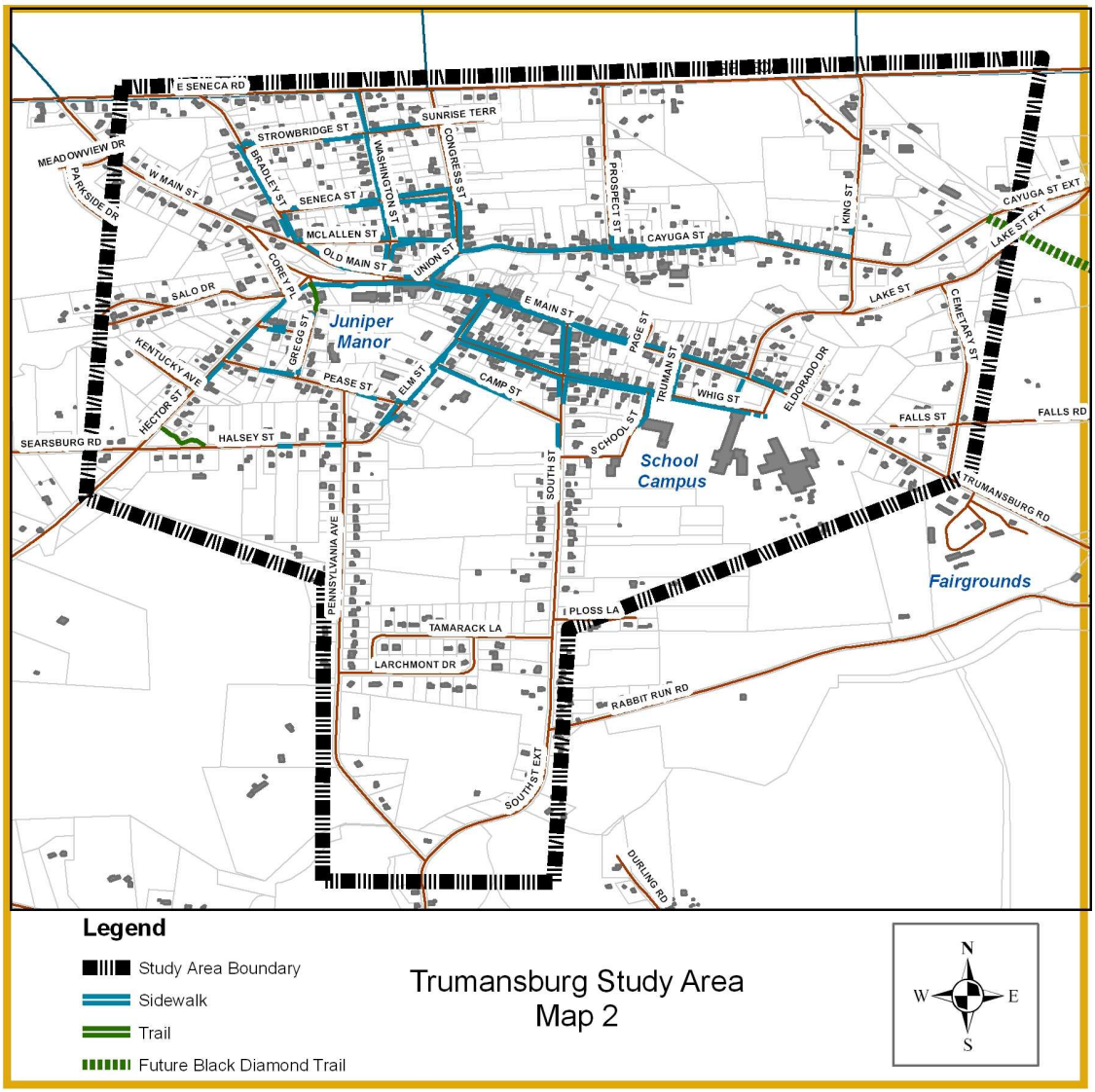
Local Plans and Initiatives

- The Village of Trumansburg's Main Street Project, after many years of planning, fundraising, and design, was constructed during the summer and fall of 2006. The project includes the installation of new curbs, sidewalks, benches and furnishings, and street trees and plantings in the Village center, all designed to improve traffic flow, increase main street vitality, and enhance pedestrian safety and comfort, and create a sense of place. Outside of the Village center toward the

Main Street Under Construction

southeast, the project includes a sidewalk linkage between the Village center, the school complex and the fairgrounds. Also new sidewalk was added northwest of the Village center to the intersection of Hector Street. The project is now substantially complete, with the exception of the installation of new pedestrian-scale lighting, some plantings and miscellaneous streetscape furnishings that are slated for installation in the spring of 2007.

- The Tompkins County Comprehensive Plan, provided by the Tompkins County Planning Department, has an emphasis on building strong communities in compact nodes. Development of pedestrian infrastructure to encourage walkability is a key component of the Plan. The Comprehensive Plan supports establishment of pedestrian pathways and bikeways to link communities, improve community cohesiveness, and increase activity of the people in the communities.
- The Sidewalk Survey, provided by the Ithaca-Tompkins County Transportation Council, is a database and GIS coverage area for all the sidewalks within Tompkins County.



Community Input

The community provided input at three points in the study:

A. Steering Committee/Project Team Discussions

The steering committee and project team met on two occasions to discuss the project and identify the walkability needs of the study area. The first meeting was held in the Tompkins County conference room where the project team reviewed the project scope and then facilitated discussions on walkability concerns from the steering committee members. The committee discussed specific issues, locations of walking concerns, and the general character of neighborhoods within the study area. This open and informative discussion provided a wonderful base to progress the remainder of the study.

Members of the steering committee and the project team also spent one afternoon walking many of the streets and slate sidewalks to observe the field conditions of the neighborhoods within the study area. This provided additional insight to the concerns and information discussed in the first meeting.

B. Workshop Discussions

A workshop was held the morning of October 14, 2006 to present and educate participants on the importance of community walkability and methods of measuring the degree of walkability in a community. The workshop was attended by 17 people from the community. During the presentation, there was opportunity to discuss walkability concerns of the group and review the components and use of the *Walkability Assessment Survey* tool. Instructions were also given on where to submit the completed forms. About ten individuals then participated in a field demonstration of use of the survey tool for data collection and walkability assessment. The input received at this workshop is part of the summary in Section 3.1.4.

C. Completed Field Surveys

Ten completed surveys were received for the Trumansburg community. These surveys are included in Appendix 7.6. The concerns identified in the surveys are included in the following “Summary of Needs” section and also presented graphically in Figure 3.2. Information received from the surveyors included multiple entries for sections of the survey looking for a single entry or description of condition as instructed in the workshop. Therefore, the results presented were ambiguous and was not a concise assessment of the route surveyed.

Summary of Needs

- Trumansburg had a well developed network of slate sidewalks in the late 19th and early 20th century that has deteriorated in quality and function during the past 50 years. The sidewalks consist of locally quarried 5' wide flagstone slabs separated from the road by an 8 – 10' grass tree lawn with street trees. In years past, the walks were continuous, crossing driveways and traversing from property to property. Over time the integrity and continuity of the walks have been compromised through differential settlement, cracking and flaking, removal at driveway crossings and vegetation encroachment. Some residents have erected fences and hedges at their property lines, breaking the continuity completely. While some residents are comfortable walking on the smooth road pavement, many would prefer not having to walk on Village streets with children in strollers or on scooters.

Brush Overgrowth between Street and Sidewalk

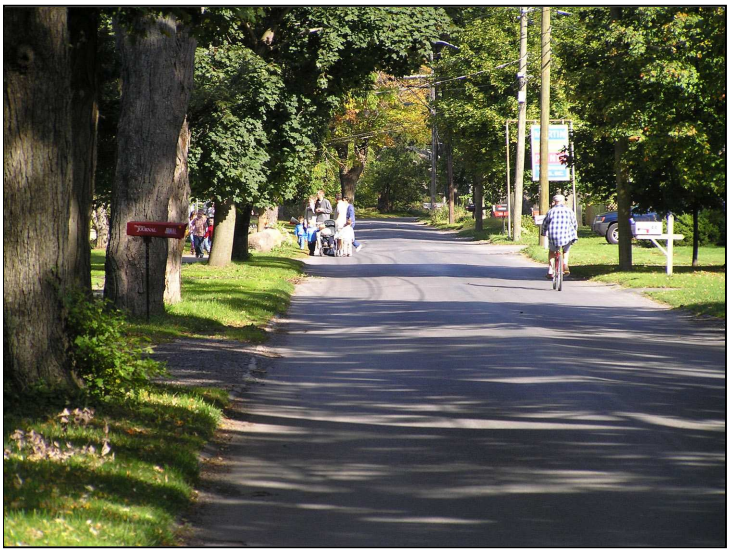
The existing slate sidewalks are a tremendous asset to the Village and were originally provided from a local quarry. However, the sidewalks have been poorly maintained over the years and some of the slate has been removed from individual parcels without replacing the sidewalk connection. Most of the slate sidewalk is broken and uneven with some sections impassable. The slate sidewalks are also slippery in wet conditions.

Non-Standard Parking Arrangement

During the field visits with the steering committee and the workshop, many people were observed using the street instead of the sidewalk due to the sidewalk condition.

The streets north of Main Street with sidewalks include:

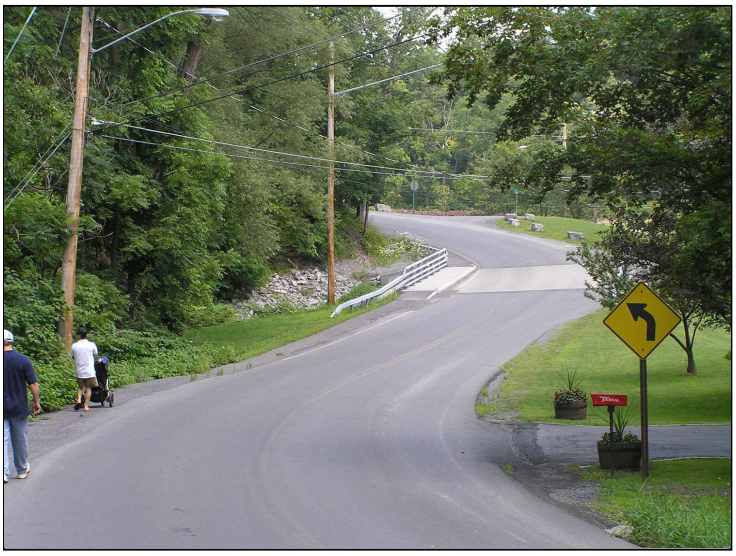
- Cayuga Street
- McLallen Street
- Seneca Street
- Bradley Streetwalk desired
- Strowbridge Street
- Sunrise Terrace
- Congress Street
- Prospect Street
- Old Main Street
- Washington Street
- Union Street



Walking in the Street

The streets south of Main Street with sidewalks include:

- Gregg Street
- Pease Street
- Elm Street
- Camp Street
- Whig Street
- Truman Terrace
- Hector Street
- School Street
- South Street (northern portion to School Street)



Walking Along King Street

- The Main Street construction project will add or enhance sidewalks on both sides of the street from the school area to the south to Hector Street to the north, however, addition or enhancement of sidewalk links to side streets was not included in the Main Street construction project.
- Village tree lawns, which separate the road from the pedestrian network and provide a lot of the scenic and historic charm to these historic streets, have also been compromised over time as residents have begun parking on the grass, then surfacing their parking areas with gravel or asphalt.

Tree lawns with street trees enhance the visual quality of these historic streets, while serving many functions, including separating the sidewalks from vehicles, providing shade, and supplying street trees with pervious and uncompacted soil in which to grow and thrive.

- Many of the streets are narrow and without shoulders and pedestrians walk with traffic where sidewalks are missing or impassable.
- Although it was noted that people create many recreational walking routes depending on the length of walk desired, several walking loops were discussed at the steering committee meetings, including:

Non-Standard Parking Arrangement

  - Congress/Union/Main/Lake /King/Seneca loop
  - Elm/Camp/South/Pennsylvania loop

Tree Lawn Area that Needs Improvement

Recommended Projects and Changes To Pedestrian Infrastructure Based on Prioritized Goals

In Section 2, many needs and concerns were listed that describe ways that walkability is hindered on a particular street, in a neighborhood area, or for the entire community. The goals that were developed in Section 2 will be the guide for addressing and prioritizing steps and projects to improve the walkability in the study area. This section lists specific projects to address the study area needs for each project goal. The more goals that are satisfied for an area of improvement, the higher the priority of that action.

The prioritized project goals are:

1. Build on current pedestrian initiatives and plans by municipalities
2. Provide safer, more accessible school routes for children.
3. Provide safer, more accessible crossings at intersections.
4. Provide safer, more accessible walking routes to desired destinations.
5. Provide recreational walking loops through the community.
6. Reduce conflict between vehicular traffic and walkers.

Goal 1. Build on current pedestrian initiatives and plans by municipalities

a) The Main Street Project was a great accomplishment in improving walkability in the Village. However, due to budget constraints, the Main Street Project did not include continuous sidewalks along both sides of Main Street throughout the Village. In order to complete the Main Street sidewalk system, the remaining sidewalk sections along Main Street should be finished and sidewalk extensions should be made from Main Street along Union Street, Elm Street, South Street, Truman Street, and Whig Street.

b) There is recognition within the community that the slate sidewalks need to be repaired. Policies should be developed that prevent further deterioration of the historic slate sidewalk network and the associated tree lawns and street trees, and that encourage the restoration of a functional and accessible sidewalk network in the historic neighborhoods adjacent to Main Street and to reduce the Village's liability to legal action.

Goal 2. Provide safer, more accessible school routes for children

Hundreds of students walk to and from their homes to Trumansburg's school complex, with elementary, middle and high school facilities in one location. In general, improvements to the Village's pedestrian network will increase the ease and safety for students. This should result in more parents allowing their children to walk to school, and more students wanting to walk, which is beneficial for the students and for the community in general. The Main Street Project has greatly enhanced safety for students in the Village. Key routes, identified below, should be improved to enhance safety and encourage more students to walk to and from school:

a) Whig Street: Whig Street runs parallel to Main Street and is the most heavily used street by students walking to school. Unfortunately, the sidewalk is so narrow and poorly surfaced with old slate slabs, that many students do, in fact, use the street itself for

walking. Constructing a 5' concrete sidewalk, at least on the southwest side of the street, and preferably on both sides, would greatly enhance the safety and utility of Whig Street as an important pedestrian 'arterial'. The block between the schools and South Street is the highest priority, with the next block to Elm Street being of lesser, but still high importance. The intersection of Whig and South Street should also be improved. Residential streets in this area are not curbed, which creates a unique challenge for separating the vehicular and pedestrian systems at intersections. It is critical that concrete sidewalks be extended to the street edge and that detectable warning blocks for the visually impaired be incorporated into sidewalks at intersections.

b) Camp Street: Camp Street is home to the Camp Historic House, a beautiful Greek Revival mansion on a very large site, surrounded by woodlands. Sidewalks are slate, but in very poor condition and in some cases lost under soil or in the woods. Development is planned for some of the vacant acreage in this area and it is a fairly heavily used connector between the schools and the residential neighborhoods to the southwest of the Village center. Sidewalks on at least one side, preferably the west side, would enhance the safety and increase the use of this street for accessing the school facilities.

c) South Street: South Street, between Whig and Main Street is heavily used by students. Sidewalks should be upgraded to include new 5' wide continuous concrete sidewalks. South Street is used by students who live southwest of the Village center and the schools and there is no sidewalk in this less densely developed Village area. Construction of a sidewalk should be considered on one side of the street between Whig Street and Tamarack Lane.

d) Lake and King Streets: Lake Street is located northeast of the main crosswalk across Route 96 in front of the schools and is a well-used walking route for students who reside on or adjacent to Cayuga Street, north of the school complex. The street curves to the east as is drops to cross Trumansburg Creek. King Road intersects the street east of the creek crossing, making the connection on a steep hill that winds up to the higher elevations along Cayuga Street. There are no sidewalks along these streets, except on the bridge over Trumansburg Creek, where a sidewalk was recently constructed when the bridge was rebuilt. Sidewalks should be developed on the north side of Lake and the east side of King Streets between Cayuga Street and the crosswalk on Route 96 to the schools. This connection will become even more important once the Black Diamond Trail is constructed and enters the Village near this road segment.

Goal 3. Provide safer, more accessible crossings at intersections.

Survey respondents noted two street crossings that should be constructed as high visibility crossings:

a) The crossing from South Street to School Street

b) The crossing from Parkside Drive across West Main Street at the northwest edge of the study area.

Goal 4. Provide safer, more accessible walking routes to desired destinations.

a) Now that the sidewalks along Main Street in the Village center are completed, the next step is to create accessible and safe pedestrian connections to adjacent residential areas. Specific projects include the following:

i) **Washington Street:** This street is a direct connection from Main Street to Seneca Road. New sidewalks have been linked into the existing network on the southeast side of the street, but sidewalks have yet to be developed on the northwest side of Washington Street.

ii) **Union Street/Congress Street:** Improved sidewalk connectors need to be developed on both sides of the street to create linkages between Main Street and the intersection of Congress and Cayuga Streets. This segment of road experiences high vehicular and pedestrian traffic, which should be more safely separated. Curb cuts should be created at the parking area located to the northeast of Main Street buildings to control vehicular access and enhance pedestrian safety.

iii) **Cayuga Street**: This is an important connector between Congress/Union Streets intersection, the King/Lake Street intersection and the future trail head for the Black Diamond Trail. The sidewalks along this street need to be improved and replaced since many sections are unwalkable because the slate is very uneven or missing.

iv) **Hector Street:** Pedestrian connections should be improved across Hector Street to the Village Park, TCAT bus shelter and parking lot. Sidewalk is existing only on the south side of Hector Street between Main Street and Pease Street.

v) **Gregg Street:** An existing sidewalk on the west side of the Post Office connects the new Main Street sidewalk to a narrow pedestrian bridge over Trumansburg Creek. The sidewalks on Gregg Street have seemingly disappeared over time and this is a dead-end street. However, with the footbridge accessed from the end of the street, this is a great connector for residents of the adjacent neighborhoods, particularly the residents of Juniper Manor, to use this footbridge to access post office and downtown stores. Therefore, the sidewalks and tree lawns along Gregg Street should be restored with the construction of new sidewalks, at least on one side of the street.

b) Like the lower Village area, once sidewalks along Main Street are completed then the next step is to create accessible and safe pedestrian connections to adjacent residential areas. Specific projects include the following:

i) **Elm Street:** Elm Street has a Village parking lot and Ulysses Town Hall both located southwest of the Elm/Main Street intersection. Currently there are no curbs and no sidewalks or tree lawns in this area. Creating sidewalks, with tree lawns and curbs that define the building and parking lot entries will enhance safety, improve the appearance of the public meeting and parking facilities, and create a connection from Main Street to adjacent residential neighborhoods, which include Juniper Manor, Trumansburg's senior citizen housing facility.

ii) **South Street:** The public library has sidewalks along both its Main Street and South Street borders. The Methodist Church recently installed a new concrete sidewalk from its parking lot behind the church building, along South Street to Main. While the church has striped a walk across the parking lot edge, it would be more

effective to narrow the parking lot entrance to a more standard 24' width and to carry the concrete sidewalk across the full length of the parking lot.

c) As noted in the needs section, the degradation of this historic slate sidewalk walking infrastructure is exacerbated as the sidewalk and tree lawns continue to lose their function and integrity. The Village should consider adopting policies that prevent further deterioration of this important infrastructure. It is common in other villages and cities for homeowners to be responsible for construction and maintenance of sidewalks and tree lawns in the publicly-owned right-of-way along their properties.

The Village should consider developing and adopting policies that encourage or require residents to either maintain the slate sidewalk as a continuous and functioning sidewalk across their property, or to replace it with 5' wide concrete sidewalk. While concrete does not have the historic charm of the slate, the slate is very slippery in wet and cold conditions, even if in good repair. This policy decision could be incorporated into public discussions as the Village's comprehensive plan is developed.

Following is a list of streets that have slate sidewalks along some or all of their length: Washington Street, Congress Street, Cayuga Street, Prospect Street, McAllen Street, Seneca Street, Bradley Street, Gregg Street, Elm Street South Street, Whig Street, Camp Street and Pease Street.

d) Walking in Outer Village
Many adults are comfortable walking on Village streets, particularly those further from the Village center, where houses are more widely spaced and traffic volumes are lower. To maintain or improve walking conditions is these areas, it is important to monitor the overall issues of traffic speed and volume, street width and shoulder condition to understand and improve general corridor walkability. In addition, it is important to address any site specific concerns about visibility, road geometry, intersections and other conditions that can create hazardous areas along an otherwise safe and comfortable route. In special circumstances, sidewalks or paved shoulders/bike lanes should be considered if the route is a route to the schools, such as on South Street to the southwest of Whig Street.

Following are some of Trumansburg's outer Village streets: Strowbridge Street, Washington Street (outside historic area), Congress Street (outside historic area), Prospect Street (outside historic area), Bradley Street (outside historic area), Meadowview Drive, Parkside Drive, Halsey Street, Pennsylvania Avenue, South Street, Larchmont Drive and Tamarack Lane.

i) **Northwest Sidewalk Extensions**: Extending the sidewalk from Hector Street and the Village Park along Route 96 to Seneca Street in the west shoulder of Route 96 would allow for sidewalk development on Seneca Street to the mobile home park further to the west on Seneca Road. Also, sidewalk improvements currently end at Washington Street and, in the future, should be extended at least to the small Village

park at the Hector Street intersection. These extensions will allow sidewalk access to the Fire Station and eventually to Seneca Street to provide access to professional offices and facilities on Seneca Street, east of Route 96.

ii) **Southeast Sidewalk Extensions:** Although outside of the study area, extending the sidewalk network on the south side of Route 96 from the fairgrounds to the new Kinney Drug Store and Subway Restaurant would more safely accommodate pedestrians to these facilities and also provide safe access from remote parking areas to the fairgrounds for large events. The sidewalk network on the north side of Route 96 now ends at Lake Street. Extending this sidewalk to the southeast would provide pedestrian connections to residential neighborhoods between Lake and Cemetery Roads, to the fairgrounds, and beyond to the ShurSave grocery store.

Goal 5. Provide recreational walking loops through the community.

a) Many Village residents take long recreational and exercise walks, sometimes on a daily or regular basis, on Village streets and the town and country roads outside of the Village. While these routes are highly individualized, steering committee members and public meeting attendees described a couple of common routes on the north and south sides of the Village.

Scenic, safe, and popular routes that are used north of the Village center include Washington Street, Congress Street, Seneca Road, King Street, Lake Street, and Cayuga Street. Routes south of the Village center include South Street, Pennsylvania Avenue, Elm Street, and Camp Street.

One frequently mentioned loop is the Seneca Road Loop, where one walks north on Congress Street (or another Village street that intersects Seneca Street), east on Seneca Road to King Street (or beyond to Frontenac/Lake Street Extension), and returning on Cayuga Street (or possibly Main Street).

Strategies for enhancing the safety and comfort of these routes are similar as those described above for suburban-style neighborhoods and include setting and monitoring speed limits, ensuring that there is adequate road and/or shoulder width, and solving any site specific issues related to visibility, road geometry, intersections, etc. Specific areas for spot improvements consist of:

- Trimming vegetation at the intersection of Cayuga Street and King Street
- Trimming vegetation all along Seneca Road from Washington Street to King Street and further east outside the study area.
- Trimming vegetation along the embankment of Main Street north of Hector Street.

Strategies should be developed for improving comfort and safety of those recreational walking routes, as well as developing material geared toward informing residents of the location of these “best routes “.

b) Developing a greenway trail network would enhance the walking environment by creating a system of off-road, accessible trails suitable for walking, running, biking, inline skating and for use by families with strollers and those who have mobility impairments.

Besides facilities at the public schools, the Village of Trumansburg has two public parks:

1) Village Park at Hector Street and Main Street
2) State Park on Main Street across from the Village Park (this park is small consisting of a monument and a short access loop road.)

The only significant public open space within the Village limits is located on school property. Also, a few miles to the east is Taughannock Falls State Park which is planned to be connected to the Village by the Black Diamond Trail.

Since Trumansburg has very little public open space or recreational facilities, the development of a Village Greenway network presents an opportunity to link neighborhoods and facilities with an off-road walking and biking trail that can help create safe linkages and provide a valued public open space system. The formation of a **greenway task force** or committee would be an important first step in exploring the feasibility of this concept. This could be incorporated into public discussions while developing the Village Comprehensive Plan. Components of a Village greenway system could include:

- State Parks is in the process, albeit a long one, of developing the **Black Diamond Trail** on the former Lehigh Valley railroad line that the state owns. This trail, at some point in the future, will enter the Village at it's the trail's intersection with Cayuga Street. Creation of a trailhead at this intersection is recommended. On-street and sidewalk linkages along Cayuga Street are also recommended to create a safe linkage to services in the Village center.
- **North Meadow Trail** – the feasibility of developing a trail from Seneca Street (near the mobile home park) though the Auble development to the Village park at the corner of Main and Hector Streets should be explored.
- **Trumansburg Creekwalk** in Village Center–the feasibility of developing a creekwalk behind the Main Street buildings all the way to the Post Office should be explored.
- **South Village Trail** –the feasibility of linking the Village Center to the schools, fairgrounds and Taughannock Creek and creating a loop trail or trails on school and fairground property should be explored.

Goal 6. Reduce conflict between vehicular traffic and walkers.

Walking conditions in Outer Village neighborhoods that have developed outside of the historic residential neighborhoods should be enhanced. In general, residents appear comfortable walking on Village streets. Yet there remain issues that should be addressed

relating to traffic speed and volume; accessibility; safety for young children, senior citizens or those with special needs; changing seasonal conditions that may warrant a more proactive approach involving traffic calming; and sidewalks, shoulders or bike lanes to enhance walkability.

Top 5 Priority Projects for Improving Walkability in Trumansburg

1. **Develop a Safe Routes to School Program and improve sidewalks on Camp Street, Whig Street, Pease Street, Lake Street and King Street.**

2. **Extend Main Street sidewalk from Washington Street to Community Park off Hector Street and then to the northwest to Seneca Street.**

3. **Improve Elm Street sidewalk, parking and streetscape on both sides of the street between Main Street and Town hall and Village hall parking. Improve Union Street and Cayuga Street to link the central area to Lake Street and the future Black Diamond Trailhead.**

4. **Adopt and enforce policies regarding sidewalk upgrades and tree lawn maintenance to provide a consistent sidewalk area throughout the Village. Upgrades include resetting of slate sidewalk, integrating pieces of slate in concrete sidewalk or new concrete sidewalk in historic Village neighborhoods where slate sidewalks are, or were previously, in existence.**

5. **Develop a Trumansburg Greenways Committee to develop a greenway/trail master plan and implementation strategy.**

Figures and maps on the following pages:

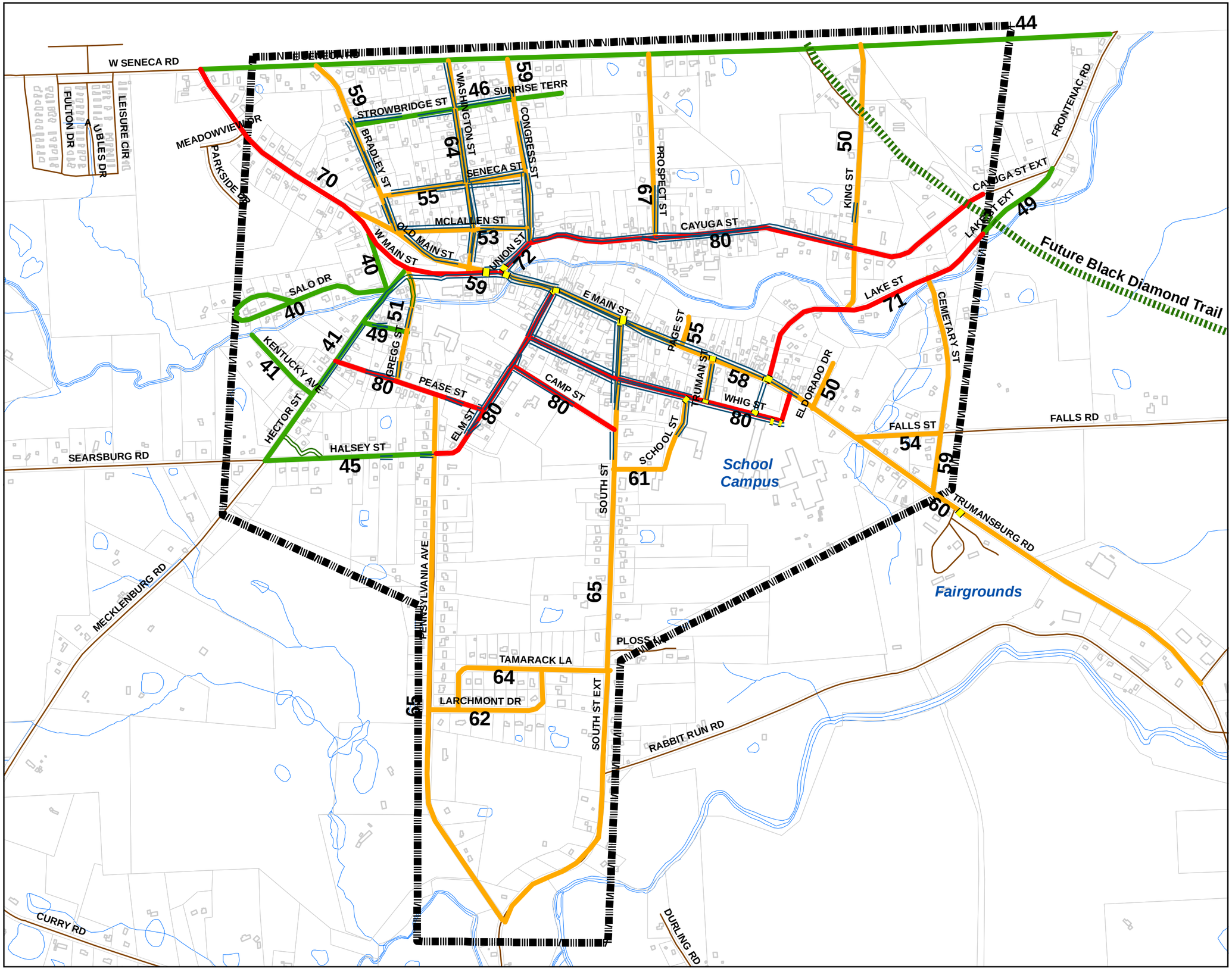
- Revised Survey Results Ranking Matrix
- Priority Ranking of Walkway Improvements
- Walkability - Recommended Projects Map

REVISED SURVEY RESULTS RANKING MATRIX

NAME	Road_Class	Rank_Value	Route_Prio	Rank_Val_1	Walk_Type	Rank_Val_2	Walk_Cond	Rank_Val_3	Walk_Envi	Rank_Val_4	Non_Peds	Rank_Val_5	Crossing	Rank_Val_6	Tot_Rating
CAMP ST	Local Road	5	School + Destination + Recreation	30	Sidewalk	5	Awful	10	Awful	10	Awful	10	Awful	10	80
CAYUGA ST	Local Road	5	School + Destination + Recreation	30	Sidewalk	5	Awful	10	Awful	10	Awful	10	Awful	10	80
ELM ST	Local Road	5	School + Destination + Recreation	30	Sidewalk	5	Awful	10	Awful	10	Awful	10	Awful	10	80
PEASE ST	Local Road	5	School + Destination + Recreation	30	Sidewalk	5	Awful	10	Awful	10	Awful	10	Awful	10	80
WHIG ST	Local Road	5	School + Destination + Recreation	30	Sidewalk	5	Awful	10	Awful	10	Awful	10	Awful	10	80
UNION ST	Local Road	5	School + Destination + Recreation	30	Sidewalk	5	Many Problems	8	Many Problems	8	Many Problems	8	Many Problems	8	72
LAKE ST	Local Road	5	School + Destination + Recreation	30	Shoulder	10	Some Problems	6	Some Problems	6	Many Problems	8	Some Problems	6	71
W MAIN ST	Arterial	15	Destination	10	Road	15	Some Problems	6	Some Problems	6	Many Problems	8	Awful	10	70
PROSPECT ST	Local Road	5	School + Destination + Recreation	30	Shoulder	10	Many Problems	8	Many Problems	8	Good	4	Very Good	2	67
PENNSYLVANIA AVE	Local Road	5	School + Destination + Recreation	30	Shoulder	10	Good	4	Good	4	Some Problems	6	Some Problems	6	65
SOUTH ST	Local Road	5	School + Destination + Recreation	30	Shoulder	10	Good	4	Good	4	Some Problems	6	Some Problems	6	65
TAMARACK LA	Local Road	5	School + Recreation	20	Road	15	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	64
WASHINGTON ST	Local Road	5	School + Destination + Recreation	30	Sidewalk	5	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	64
LARCHMONT DR	Local Road	5	School + Recreation	20	Road	15	Some Problems	6	Some Problems	6	Some Problems	6	Good	4	62
SCHOOL ST	Local Road	5	School + Destination + Recreation	30	Shoulder	10	Good	4	Good	4	Good	4	Good	4	61
TRUMANSBURG RD	Arterial	15	School + Destination + Recreation	30	Sidewalk	5	Very Good	2	Very Good	2	Very Good	2	Good	4	60
BRADLEY ST	Local Road	5	Destination + Recreation	15	Sidewalk	5	Awful	10	Many Problems	8	Many Problems	8	Many Problems	8	59
CEMETARY ST	Local Road	5	School + Recreation	20	Shoulder	10	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	59
CONGRESS ST	Local Road	5	Destination + Recreation	15	Sidewalk	5	Many Problems	8	Many Problems	8	Many Problems	8	Awful	10	59
OLD MAIN ST	Local Road	5	Destination + Recreation	15	Sidewalk	5	Awful	10	Many Problems	8	Many Problems	8	Many Problems	8	59
E MAIN ST	Arterial	15	School + Destination + Recreation	30	Sidewalk	5	Very Good	2	Very Good	2	Very Good	2	Very Good	2	58
TRUMAN ST	Local Road	5	School + Destination + Recreation	30	Sidewalk	5	Good	4	Good	4	Good	4	Good	4	56
PAGE ST	Local Road	5	School	15	Road	15	Good	4	Good	4	Some Problems	6	Some Problems	6	55
SENECA ST	Local Road	5	Recreation	5	Sidewalk	5	Awful	10	Awful	10	Awful	10	Awful	10	55
FALLS ST	Local Road	5	School	15	Shoulder	10	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	54
MCLALLEN ST	Local Road	5	Destination + Recreation	15	Sidewalk	5	Many Problems	8	Many Problems	8	Some Problems	6	Some Problems	6	53
GREGG ST	Local Road	5	Destination + Recreation	15	Sidewalk	5	Many Problems	8	Some Problems	6	Some Problems	6	Some Problems	6	51
ELDORADO DR	Local Road	5	Destination	10	Road	15	Good	4	Good	4	Some Problems	6	Some Problems	6	50
KING ST	Local Road	5	Destination + Recreation	15	Shoulder	10	Good	4	Good	4	Some Problems	6	Some Problems	6	50
ACADEMY ST	Local Road	5	Destination + Recreation	15	Sidewalk	5	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	49
LAKE ST EXT	Local Road	5	Destination	10	Shoulder	10	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	49
STROWBRIDGE ST	Local Road	5	Destination	10	Sidewalk	5	Many Problems	8	Many Problems	8	Good	4	Some Problems	6	46
SUNRISE TERR	Local Road	5	Destination	10	Sidewalk	5	Many Problems	8	Many Problems	8	Good	4	Some Problems	6	46
HALSEY ST	Local Road	5	Destination	10	Shoulder	10	Some Problems	6	Some Problems	6	Good	4	Good	4	45
E SENECA RD	Local Road	5	Recreation	5	Shoulder	10	Some Problems	6	Some Problems	6	Some Problems	6	Some Problems	6	44
HECTOR ST	Collector	10	Destination	10	Sidewalk	5	Good	4	Good	4	Good	4	Good	4	41
KENTUCKY AVE	Local Road	5	Destination	10	Shoulder	10	Good	4	Good	4	Good	4	Good	4	41
COREY PL	Local Road	5	School	15	Shoulder	10	Good	4	Very Good	2	Very Good	2	Very Good	2	40
SALO DR	Local Road	5	Destination	10	Road	15	Good	4	Very Good	2	Very Good	2	Very Good	2	40

May 25, 2007

Trumansburg Priority Ranking of Walkway Improvements

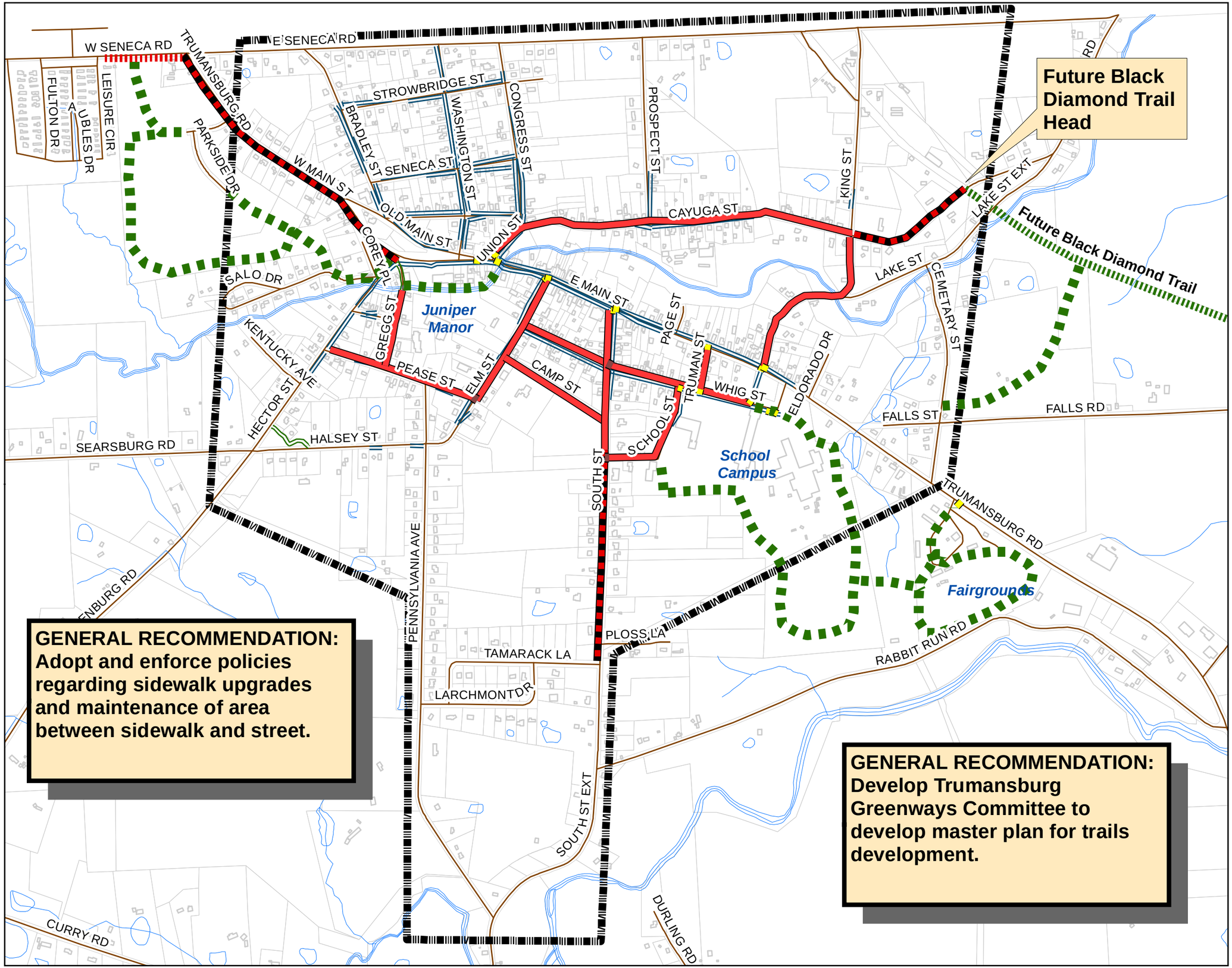


Legend

- Study Area Boundary
- Sidewalk Ranking High Priority
- Sidewalk Ranking Medium Priority
- Sidewalk Ranking Low Priority
- Existing Sidewalk
- Multi-Use Path
- Future Trail
- Existing Crossswalks

Stantec

Northeast Greenways



Trumansburg Walkability - Recommended Projects

Legend

- Study Area Boundary
- Improved Sidewalk
- Proposed Sidewalk
- Future Sidewalk
- Future Trail
- Potential Trail
- Sidewalk
- Multi-Use Path
- Existing Crosswalk
- Proposed Crosswalk

May 23 2007

Stantec

Northeast Greenways

4.0 Funding Opportunities

There are several funding streams and grants available that may be applied for or programmed to fund projects. These include:

- **Transportation Improvement Program**: This is a 5 year work program for federally funded transportation projects including highway, bridge, transit, safety, bicycle-pedestrian projects. In Tompkins County, federal transportation funds are administered by the Ithaca-Tompkins County Transportation Council (ITCTC). All transportation improvement projects in Tompkins County address the needs of pedestrians, bicyclists, and transit users, along with the needs of motorists in single occupancy vehicles. Contact ITCTC at 607-274-5570 or visit www.co.tompkins.ny.us/itctc.

- **Transportation Enhancement Program**: The Transportation Enhancement Program is a federally funded program administered by NYSDOT. Many bicycle and pedestrian projects are funded with enhancement funds, including the Cayuga Waterfront Trail, Trumansburg Main Street Project, pedestrian crossings of Route 13 at Dey and Third Street in the City of Ithaca, etc. Project proposals are requested every two or three years and are rated locally by ITCTC before being passed on to Region 3 of NYSDOT in Syracuse. Federal funds will reimburse up to 80% of the cost of enhancement projects. This is an excellent funding source, but it is very competitive and will require a significant design, approval and administrative effort, along with the ability to spend the funding up front prior to reimbursement. Legislative earmarks for special projects can be included in the 5 year federal transportation authorization legislation. Funding for the Cayuga Waterfront Trail Phase 3 and the Gateway Trail in the Town of Ithaca were acquired as earmarks in the 2005 transportation bill.

- **Safe Routes to School**: This is a new federal funding source that is being administered by NYSDOT. Guidelines for this program are still under development, but are expected during the winter of 2007.

- **Multi-Modal Funding**: State legislative earmarks for transportation projects are funded through New York State Senators and Representatives. Some local projects have been funded through this program, but it is anticipated that these funds will become increasingly difficult to acquire in the future.

- **Municipal District Surcharge**: Another mechanism for funding is the enforcement or creation of a sidewalk district within the municipality. The municipality would levy a surcharge to the landowner to improve the walking area along the frontage of the property. This surcharge could pay for the improvement in full or as a subsidy to pay for a portion of the improvement.

- **Private Foundations**: Local and national foundations can fund pedestrian infrastructure, education and encouragement projects. To be successful in acquiring funds from a foundation, a non-profit organization should apply for the funds and the project should be tied into larger community quality of life and health issues. See the table below for non-governmental sources of funding.

- **Non–Governmental Sources of Funding and Assistance for Trails and Walkable Community Projects from the Parks and Trails New York Website**

(SOURCE: http://www.ptny.org/greenways/funding/fundingpage.shtml)

Name	Amount	Purpose	Deadline
Balance Bar grants	$25,000	Supports health and wellness activities for individuals and organizations	Currently evaluating program and not accepting applications at this time
Preserve New York	$3000-$10000, only partial support	Cultural resource surveys, historic structure reports, and historic landscape reports	May 1
Kodak American Greenways	$2500 max; normally $500-$1000	To stimulate the planning and design of greenways in communities throughout America	June 1
National Parks Service Rivers , Trails, and Conservation Assistance Program	No funds, technical assistance from NPS staff	Technical assistance for community groups and local, state, and federal government agencies to conserve rivers, preserve open space, and develop trails and greenways	August 1
American Hiking Society	$500 to $10,000 per project	Acquisition, constituency building campaigns, and traditional trail work projects	November 1
Greenway Conservancy Small Grant program	$1,000—$10,000	Provides opportunities for municipalities and organizations in the Hudson River Valley Greenway area to enhance their recreational trails.	December 15

Multiple Deadlines			
Robert Wood Johnson Foundation	Can be considerable	Grants for projects that improve the health and health care of all Americans	See website
Bikes Belong Coalition	Up to $10,000	Advocacy work and organizational capacity building; construction costs; matching funds; and education programs for bikes paths, trails, routes, lanes, parking, and transit; Mountain bike and BMX facilities; innovative and unique high-profile projects	End of February, May, August, and November
Captain Planet Foundation	$500-$2500	Hands-on environmental education programs for K-12 youth that help develop cooperation and planning and problem solving skills	March 31, June 30, September 30, and December 31
Foster's Community Grants	No maximum or minimum	Supports projects in the areas of wellness, culture, and the environment that provide community benefit.	April, September
Conservation Alliance	Up to $35,000	Supports efforts of grassroots citizen-action groups to protect wild and natural lands from resource extraction and commercial development	January and August; need sponsorship of a member outdoor retailer
The Furthermore program	$500 to roughly $15,000	Nonfiction book publishing about the city; natural and historic resources; art, architecture, and design; cultural history; and civil liberties and other public issues	March 15 and September 15
General Mills Sales, Inc. and Hamburger Helper	$15,000	Raising funds to help the communities	Each month
Ben & Jerry's Foundation	$1,001 - $15,000	Grants that lead to environmental change or address the root causes of environmental problems	An ongoing basis

➢

- **Other Funding/Assistance Resources from the Parks and Trails New York Website**

New York State Commission on Community and National Service/AmeriCorps Program must address community needs in one or several of five areas: homeland security, environment, education, public safety, or other human needs. The federal funds awarded provide support for member living allowances, benefits, operational support and the education award that AmeriCorps members receive upon completion of their service term. A minimum 33% local match is required. There is a minimum program size of 10 members per award, though these members do not have to work together at a single host site or organization. If a group cannot host 10 AmeriCorps members, it can pool resources with local or regional partners. Contact AmeriCorps*VISTA , Donna Smith, Leo O'Brien Federal Building, Clinton Avenue & North Pearl Street, Room 900, Albany, NY 12207, (518) 431-4150.

Centerlines is the bi-weekly e-newsletter of the National Center for Bicycling & Walking that provides news and information to help create more walkable and bicycle-friendly communities. Check online for additional stories. To subscribe to Centerlines send a blank email.

Council of Community Services of New York State, Inc. CCSNYS) CCSNYS is a state association of New York nonprofits that offers technical assistance and group training, organizational insurance and discounted group purchasing programs for its members. Membership is based on size of organizational budget. Minimum membership is $50 for an operating budget under $50,000. As a member benefit, in partnership with GrantStation, CCSNYS each week emails the GrantStation Insider. The GrantStation Insider provides the latest information on new funding programs, upcoming grant deadlines, conferences, trainings, and relevant information for grantseekers.

Funds Net Services lists foundations offering environmental grants and financial support to communities for a variety of projects.

Governor's Office of Regulatory Reform provides a partial listing of financial resources available to New York State local governments and not-for-profit organizations.

New York National Guard GuardHELP is a program that turns community projects into National Guard training missions that support local initiatives for environmental preservation, tourism development, urban renewal, community recreation, and transportation infrastructure improvement. By utilizing the federal Innovative Readiness Training program, federal training requirements are linked to particular local needs, allowing the Guard to train as they provide valuable services, otherwise unavailable to some communities, at no cost to local taxpayers. To qualify for the program, projects must be approved by National Guard Bureau in Washington and be compatible with National Guard training requirements. Organizations seeking GuardHELP support are strongly encouraged to involve and seek support from elected officials at the local, state, and federal level. Contact the Division of Military and Naval Affairs, 330 Old Niskayuna Road, Latham, NY 12110-3514, 518-786-4500.

Pedestrian and Bicycling Information Center provides ideas that communities can use to raise funds for bicycle and pedestrian projects.

Student Conservation Association (SCA) provides interns and crew members for trail work. Contact Leigh Draper, Program Director**,** 845-255-4758**,** PO Box 699, 299 Mountain Rest Rd, New Paltz**,** NY 12561

5.0 Potential Improvements to the Process

Problems Encountered with the *Walkability Assessment Survey* Tool

Although the survey tool used in this study was comprehensive, the format did not allow an easy way to prioritize or compare the surveyed street segments. As described in Section 2.11, the survey tool was revised to allow walkers to complete a street segment and provide a numerical, subjective assessment of the segment. Then, all the street segments surveyed can be compared using some objective and subjective criteria.

Generally, survey respondents did not use separate forms for different sections or crossings of a route surveyed. That is, more than one section of a route was recorded on the same form making it difficult to know exactly which attribute went with which section or location along the route. One respondent numbered specific sections and then placed the number in the corresponding check box that described the elements of that section. However, written comments, either on the form or submitted separately, tended to describe the route and sections in greater detail. Respondents generally had difficulty filling in the portion of the form "Where do you want to walk?" but by reviewing a map or the general description, it was possible to determine which route they were surveying.

Respondents were able to add the route they were surveying to the map provided. Only one respondent used the map that had been prepared with suggested routes to survey broken down into sections and crossings. Therefore, that step in the process could be omitted, though it helped the project team to think through the possibilities and issues at a critical juncture in the project.

Many of the detailed check boxes were not used on the forms. In particular, the check boxes for the "assessment of street crossings" were generally not used and lacked any handwritten details. More check boxes were used and detailed comments provided on the "assessment of the walkway system" form, but the general lack of walkways in both communities made some sections of the form not applicable. Few comments/check boxes were used on the "assessment of the walking environment" form. Comments on this form tended to highlight the lack of sidewalks and pedestrian crossings.

A total of ten surveys were completed for the Village of Trumansburg, and six for Northeast Ithaca. There was an expectation that more surveys would be completed than were returned, and that community interest would be sufficient to ensure complete coverage of the street network. This expectation was not realized.

Overall, the dominant concern expressed by survey respondents was lack of basic walking infrastructure such as sidewalks and pedestrian crossings. Therefore, many of the check boxes describing poor conditions along sidewalks and at pedestrian crossings did not apply. However, through the use of the survey and map, those that did respond were able to highlight areas of particular concern and express their opinion on what needed to be done to improve the walking experience.

For communities like Trumansburg and Northeast Ithaca that do not have extensive sidewalk systems in place that are in good repair, the *Walkability Assessment Survey* tool may have been more effective if it had been simplified to allow respondents to identify which routes were priorities for future sidewalks and which street crossings were difficult and needed improvements. Providing a map along with both a checklist and space for written comments allowed respondents to express their concerns. One advantage of the detailed survey forms was that it offered workshop attendees and survey respondents the chance to gain a better understanding of the details that contribute to making a community walkable.

Public Input

In the case of Northeast Ithaca, obtaining input on walkability was more effective through use of active public school parent listserv than through the website or the workshop in the community. However, there was not a method set up to input the information directly to the survey tool or the GIS coverage for the area. The use of the internet and list-serves should be further explored as a method of gaining input into walkability issues within a study area.

Although publicity efforts were extensive, and the workshops were held on Saturday in the community itself, attendance at the workshops was disappointing. Future projects may want to focus on outreach to smaller groups of residents or neighborhood associations, or going directly to PTA meetings, schools, local lunch spots, running clubs or daycare providers to generate interest in the surveys and conduct the survey tool training sessions. Perhaps making the survey tool shorter and simpler, or providing alternative ways of providing input (email forms, joining in on group walks, etc.) could increase participation in completing the survey tool, as well.

Modified *Walkability Assessment Survey* Tool

As discussed in Section 2.11, the survey tool was revised to revised to simplify the form, provide a ranking system for prioritizing walking segments and gather specific comments and needs for each roadway segment (see Appendix 7.8). The format remains consistent with other walkability checklists listed in Appendix 7.1 and includes similar main headings as the other survey forms.

The main sections of the revised survey are:

- Walking Conditions (physical features)
- Interaction with Other Modes of Transportation (cars, trucks, buses, bicycles, etc.)
- Walking Environment (amenities and perceived walking comfort and safety)
- Crossing Issues (composite of the three areas listed above for the road crossings)

By incorporating a ranking method, the results of the survey can be used as a key tool to evaluate the study area priorities and pinpoint areas for improvement. The ranking can also be used to prepare a phased improvement approach important in developing priority projects to be included in municipal project planning and budgeting.

The ranking method is portable to other study areas since the method incorporates a measure of objective information as well as subjective information. The key to the subjective portion will

be to provide specific guidance to the evaluator on the degrees of walkability issues and provide examples specific to the study area. For example, in the Trumansburg study area, the uneven sidewalk along the corridors with slate slab sections, can be specified as "awful" in many of the sections listed above because many sections are simply not comfortable or easy to walk.

Several improvements to the survey methodology are recommended for use in future walkability studies:

- The street network should be segmented to match the GIS database so that the information received can be encoded in a linkable coverage area. Objective information like the street classification and walkway characteristic can be encoded as part of a priority ranking system.
- Each of these sections could have fields to collect specific information to identify needs and provide the person performing the survey a place to input a subjective ranking of each category listed above. For example, other walkability assessments provided a description of conditions to go along with the scale from 1 to 6 assigning the range from "awful" to "excellent" as the rating scheme to assess different walkway characteristics.
- A script should be written to provide a rationale to rank and prioritize the survey tool input for display on a GIS coverage area using the objective and subjective rankings of the survey tool.
- Fields should be added to the GIS database to add other comments or enhance the information provided on the survey tool.
- Street crossing information should be linked to the street segment.
- Hot links should be used to link photos, written surveys and other written community input.
- As in this study, the project team or steering committee should supplement any data collection efforts to make sure that all of the walking routes in the study area were inventoried by actually going out and completing the surveys for any routes not surveyed by the volunteers.

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